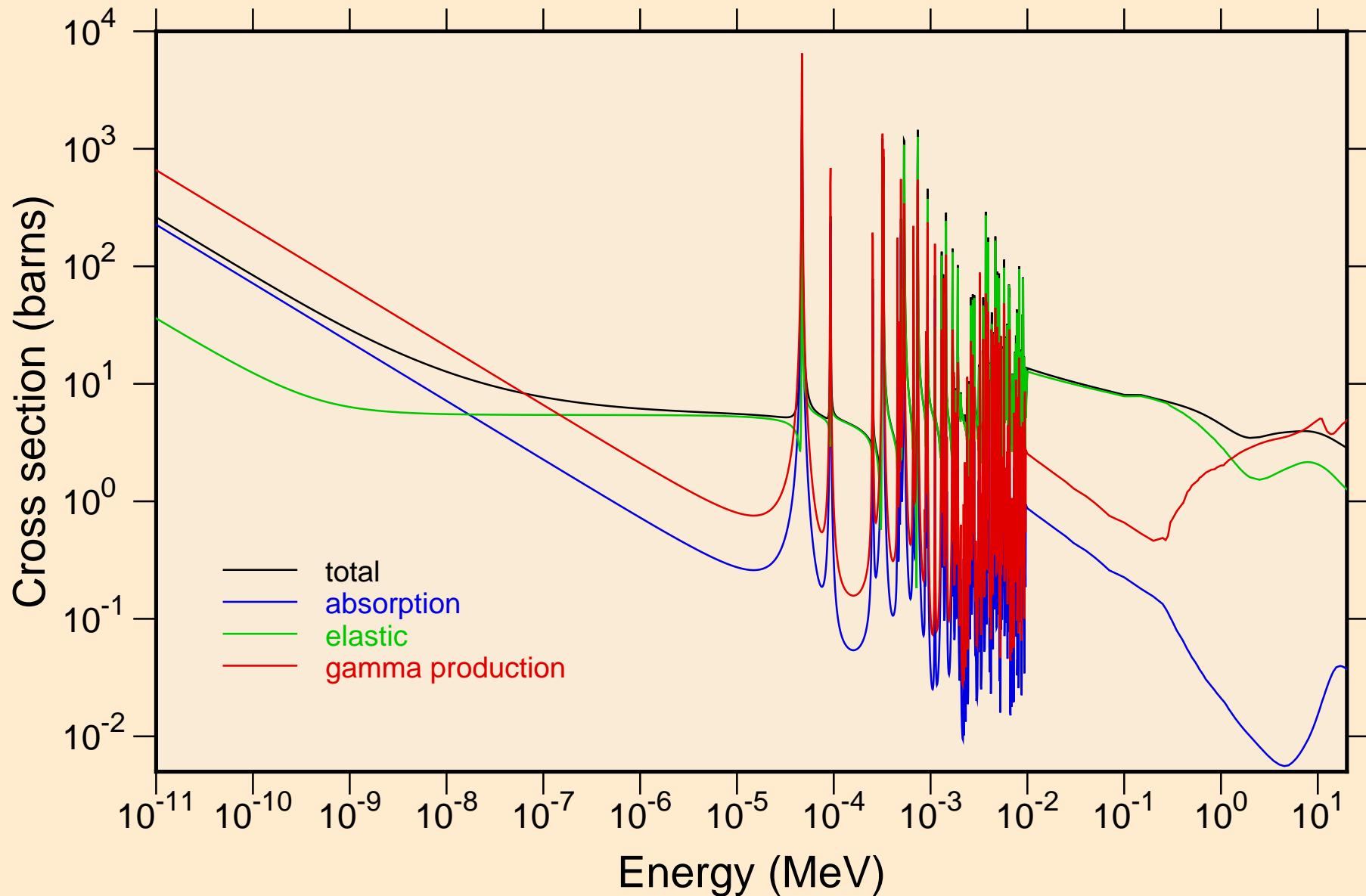


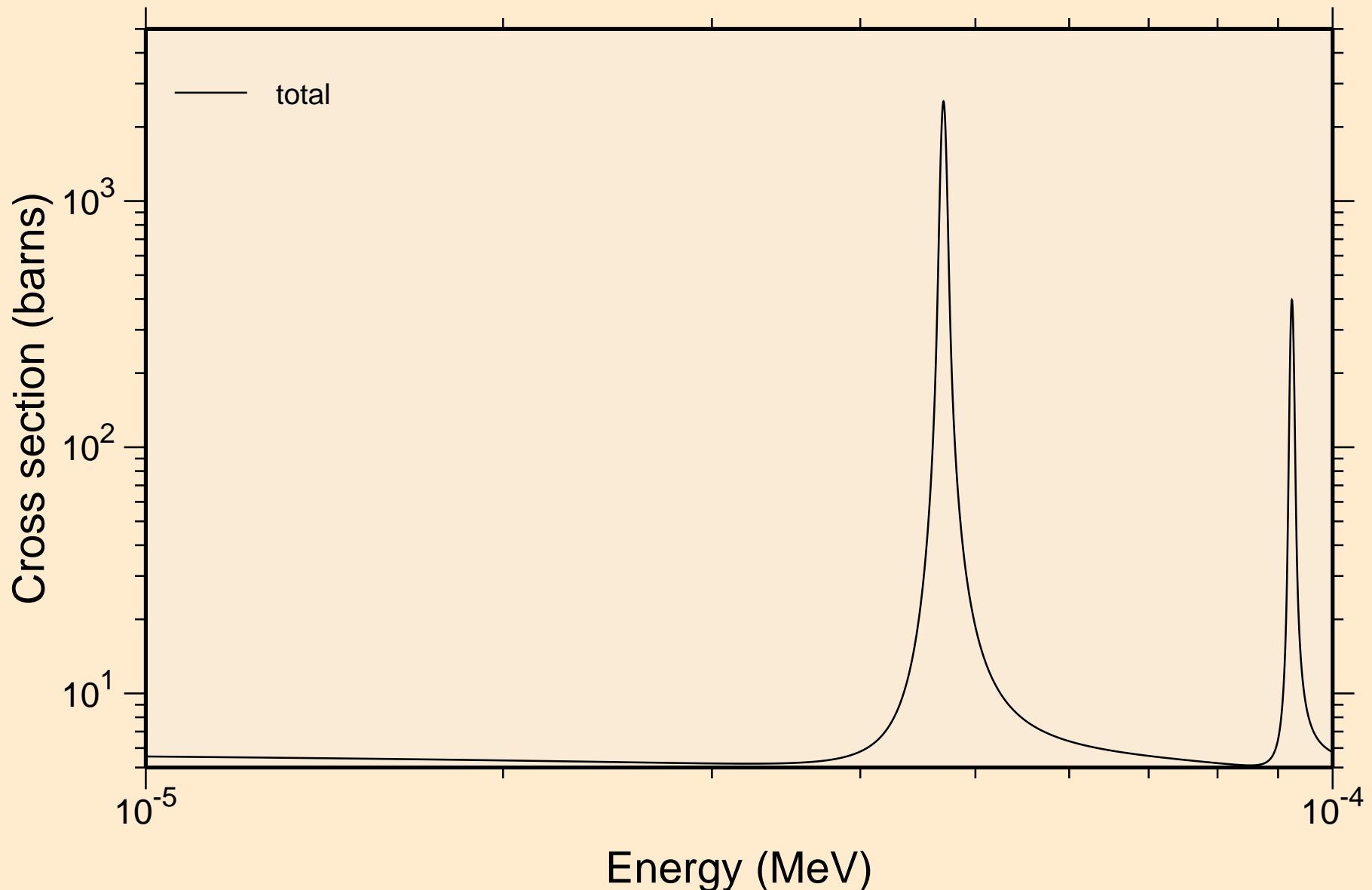
# ADVANCE CALCULATIONS

## Principal cross sections



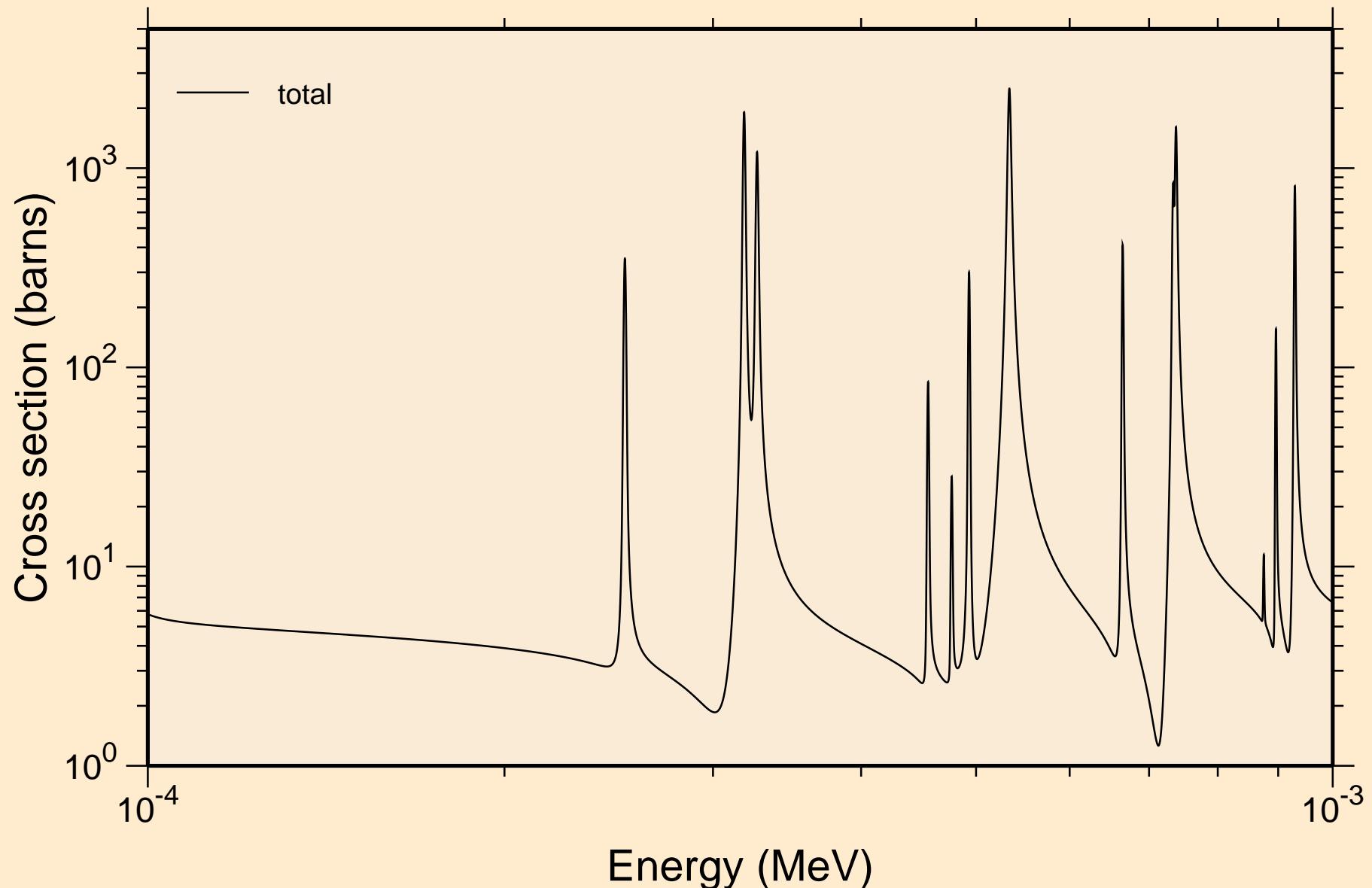
# ADVANCE CALCULATIONS

## resonance total cross section



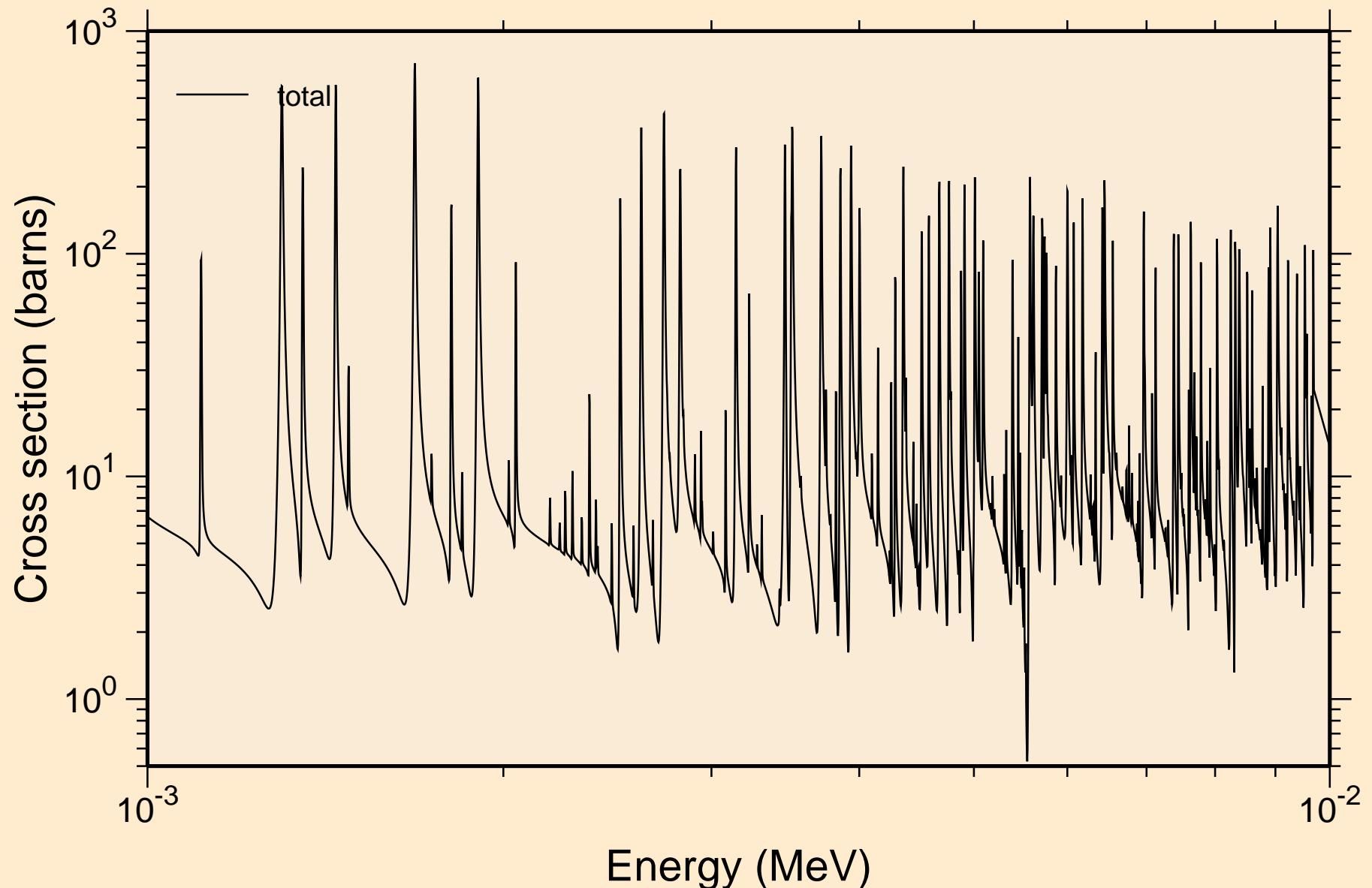
# ADVANCE CALCULATIONS

## resonance total cross section



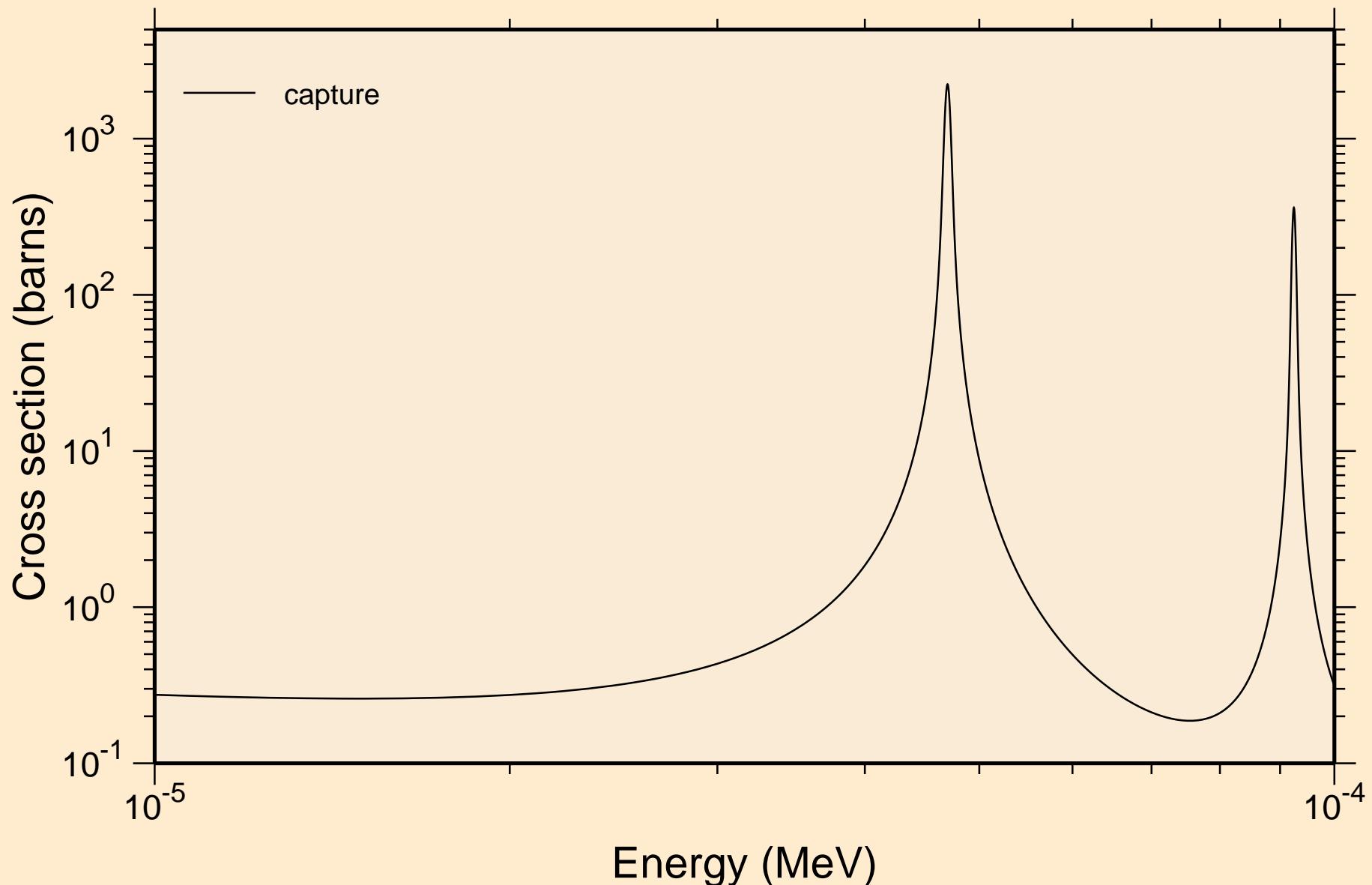
# ADVANCE CALCULATIONS

## resonance total cross section



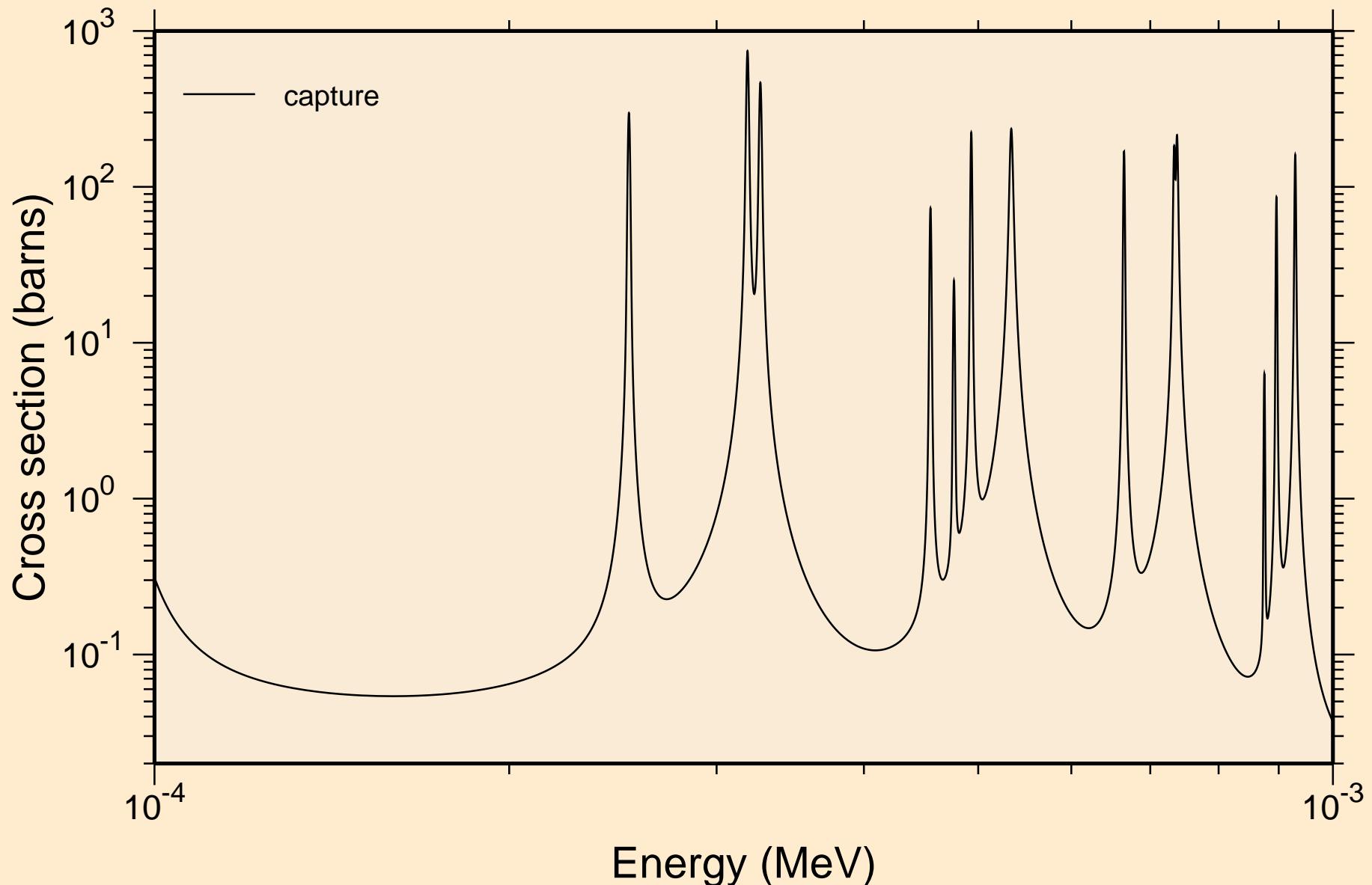
# ADVANCE CALCULATIONS

## resonance absorption cross sections



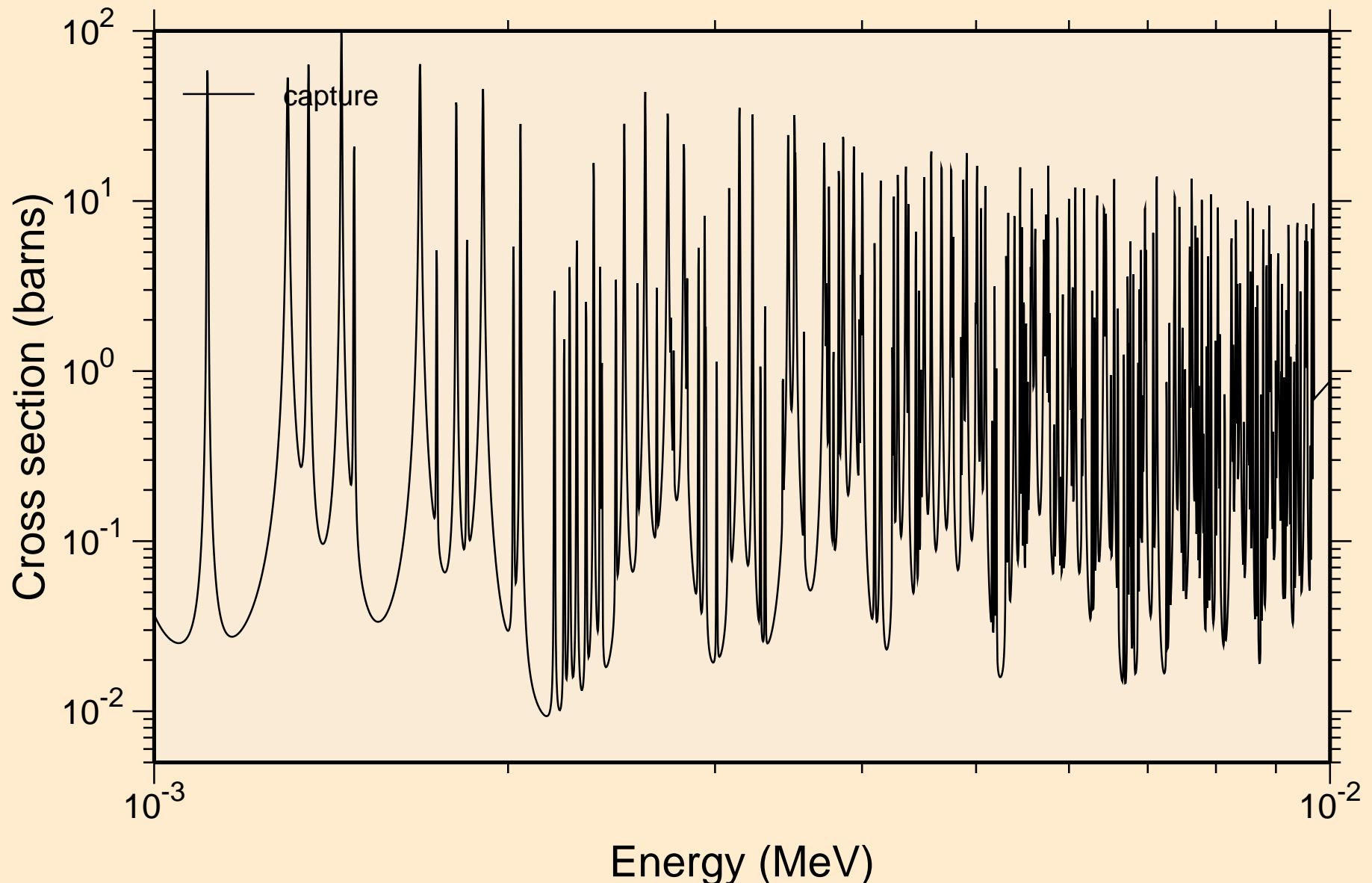
# ADVANCE CALCULATIONS

## resonance absorption cross sections



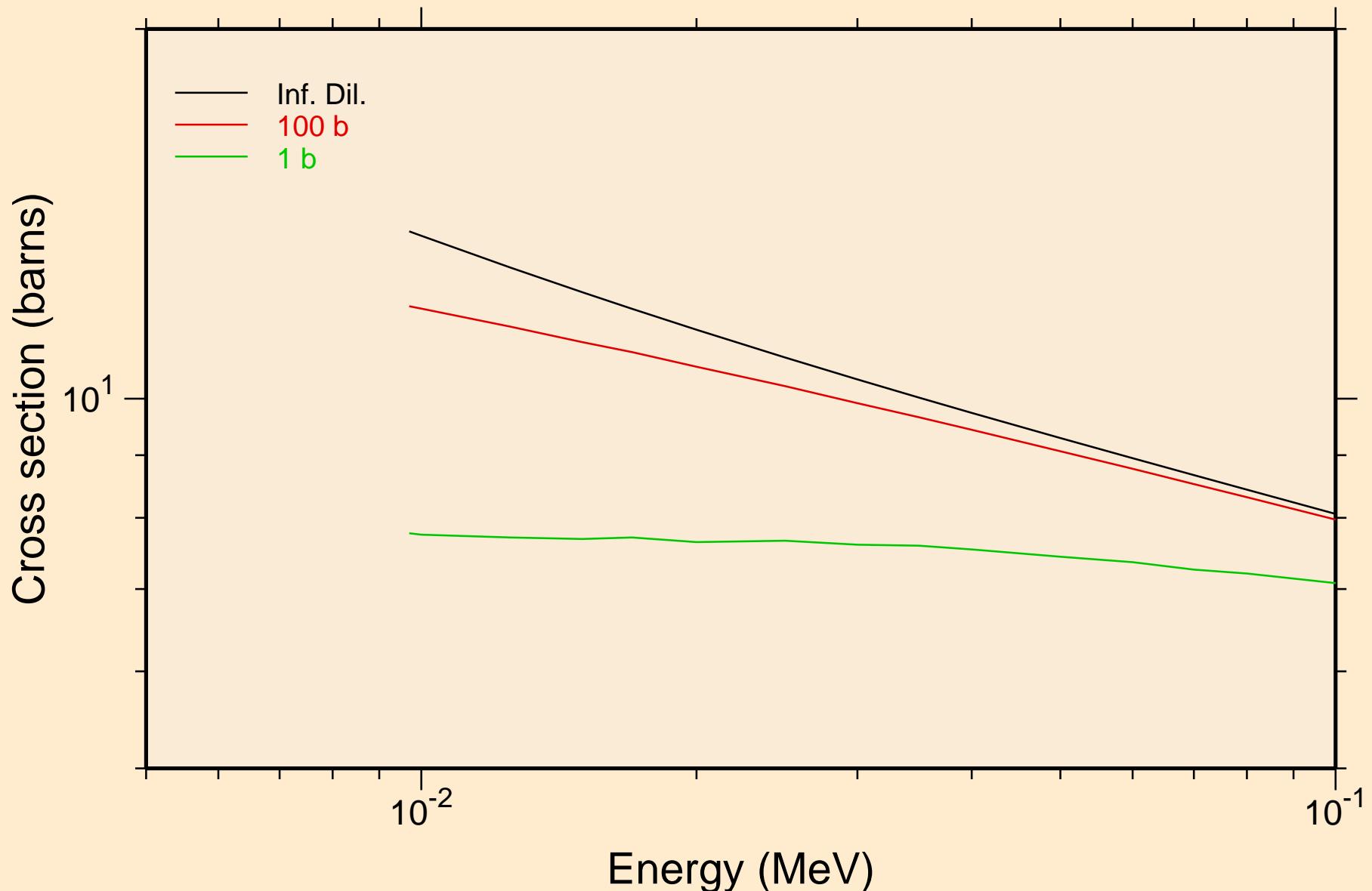
# ADVANCE CALCULATIONS

## resonance absorption cross sections



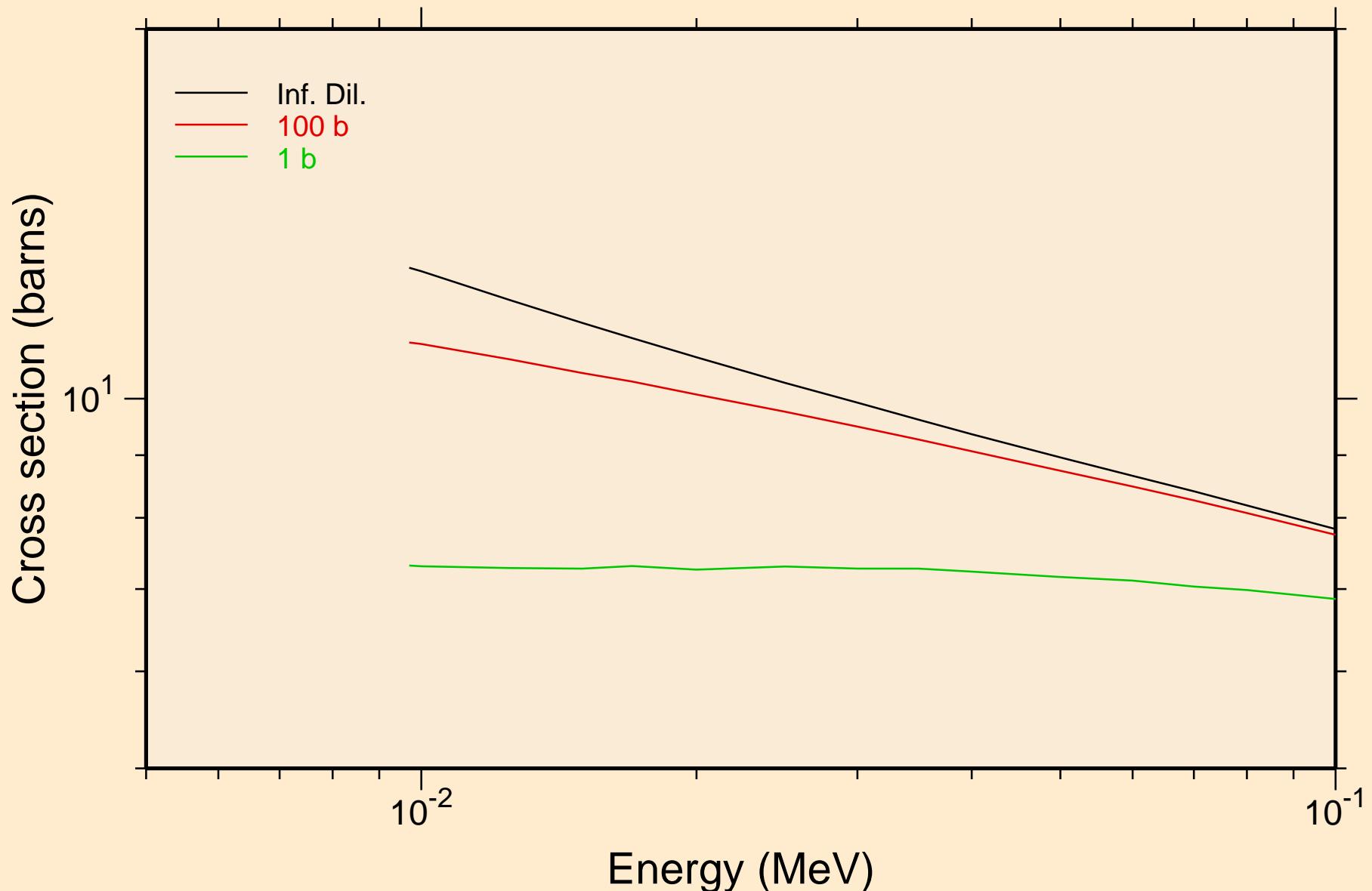
# ADVANCE CALCULATIONS

## UR total cross section



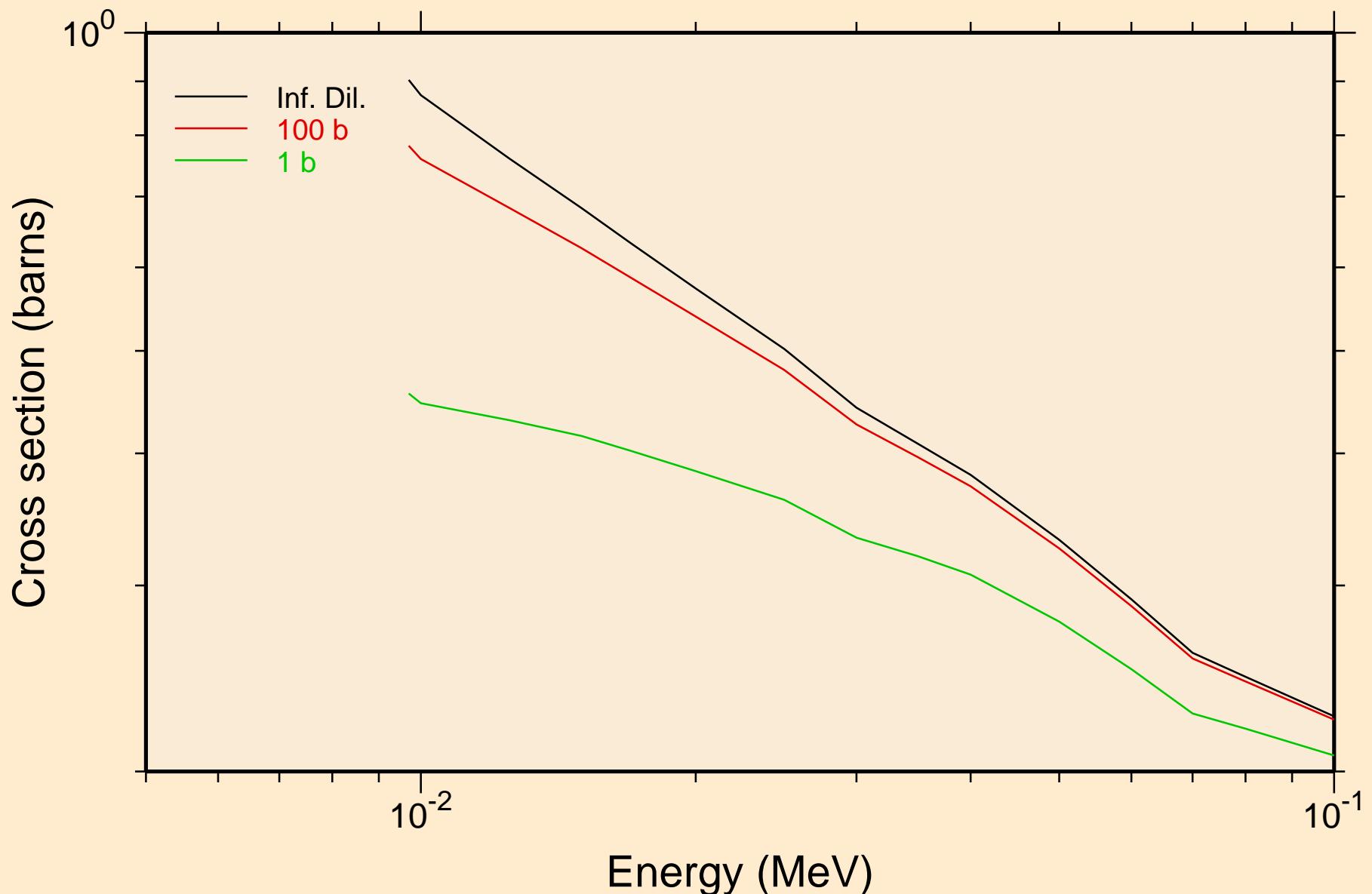
# ADVANCE CALCULATIONS

## UR elastic cross section



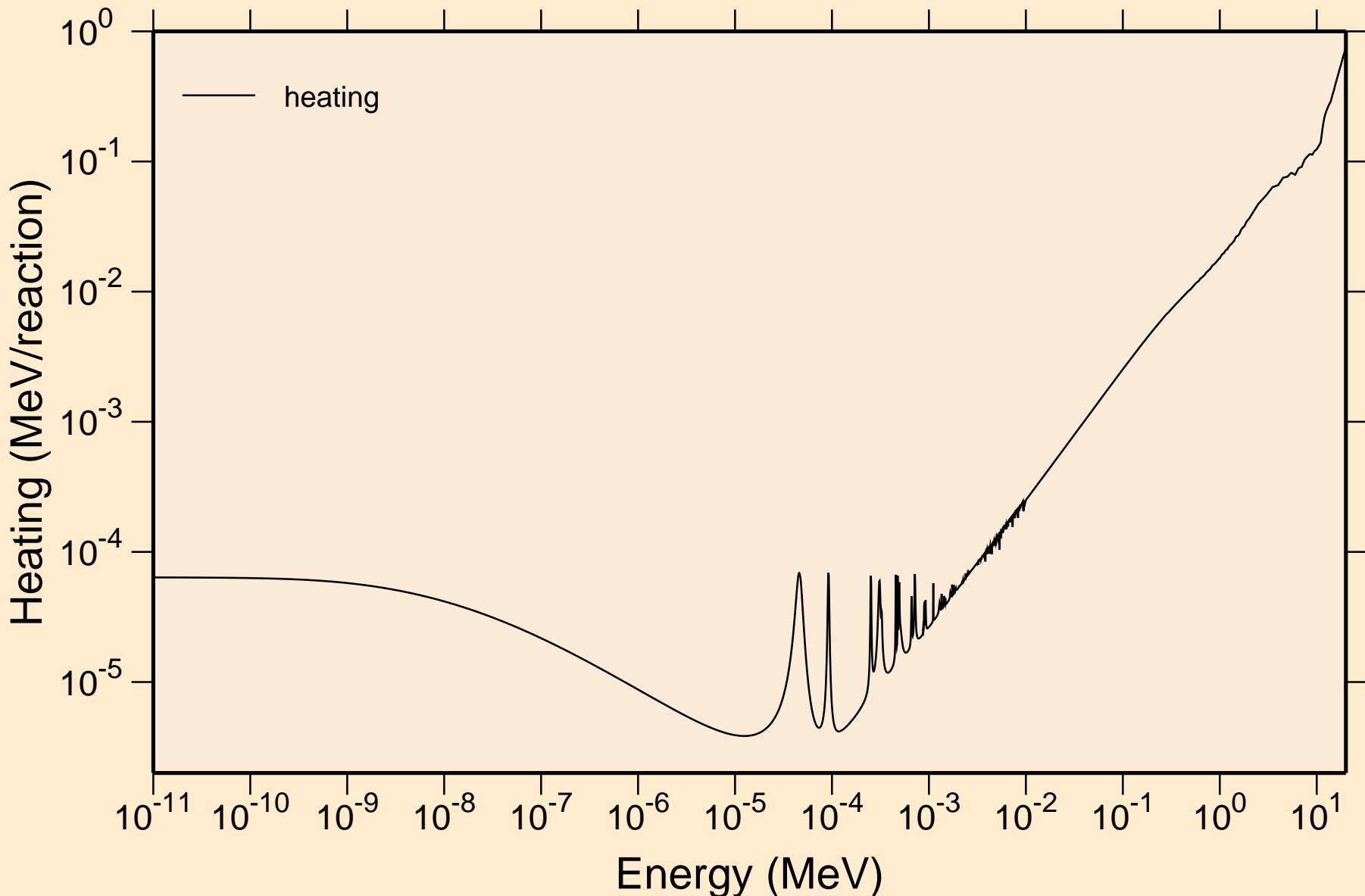
# ADVANCE CALCULATIONS

## UR capture cross section



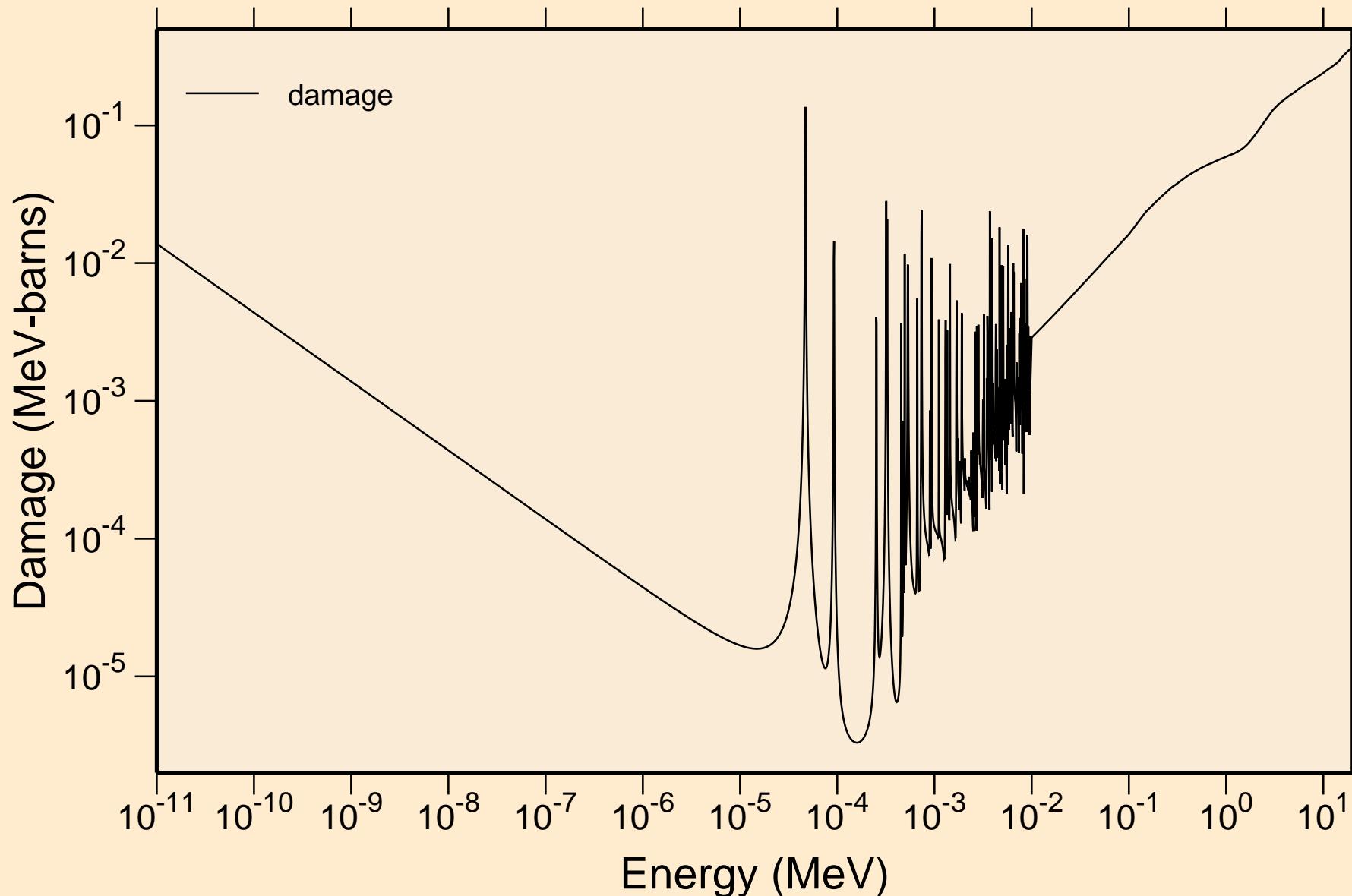
# ADVANCE CALCULATIONS

## Heating



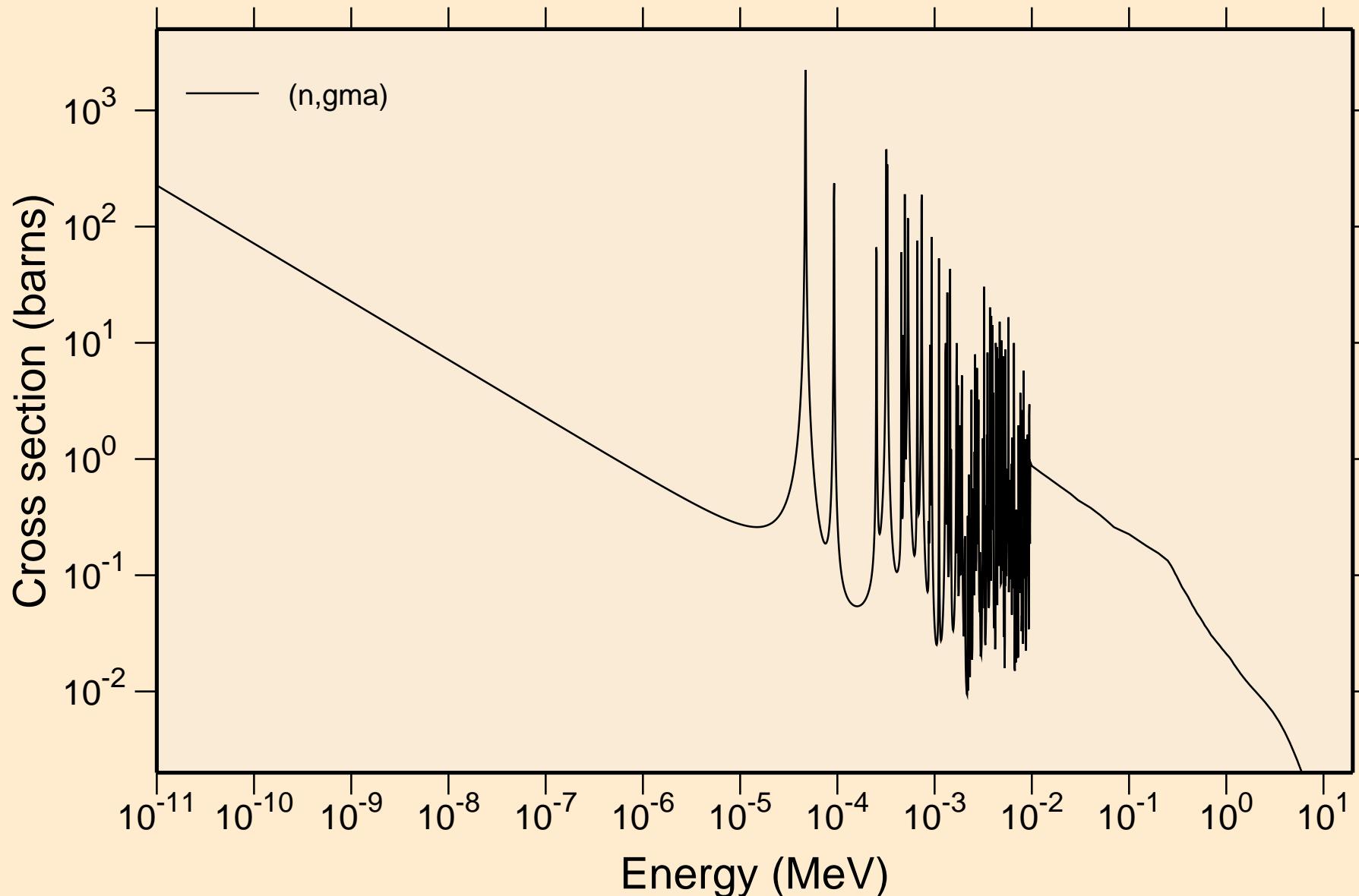
# ADVANCE CALCULATIONS

## Damage



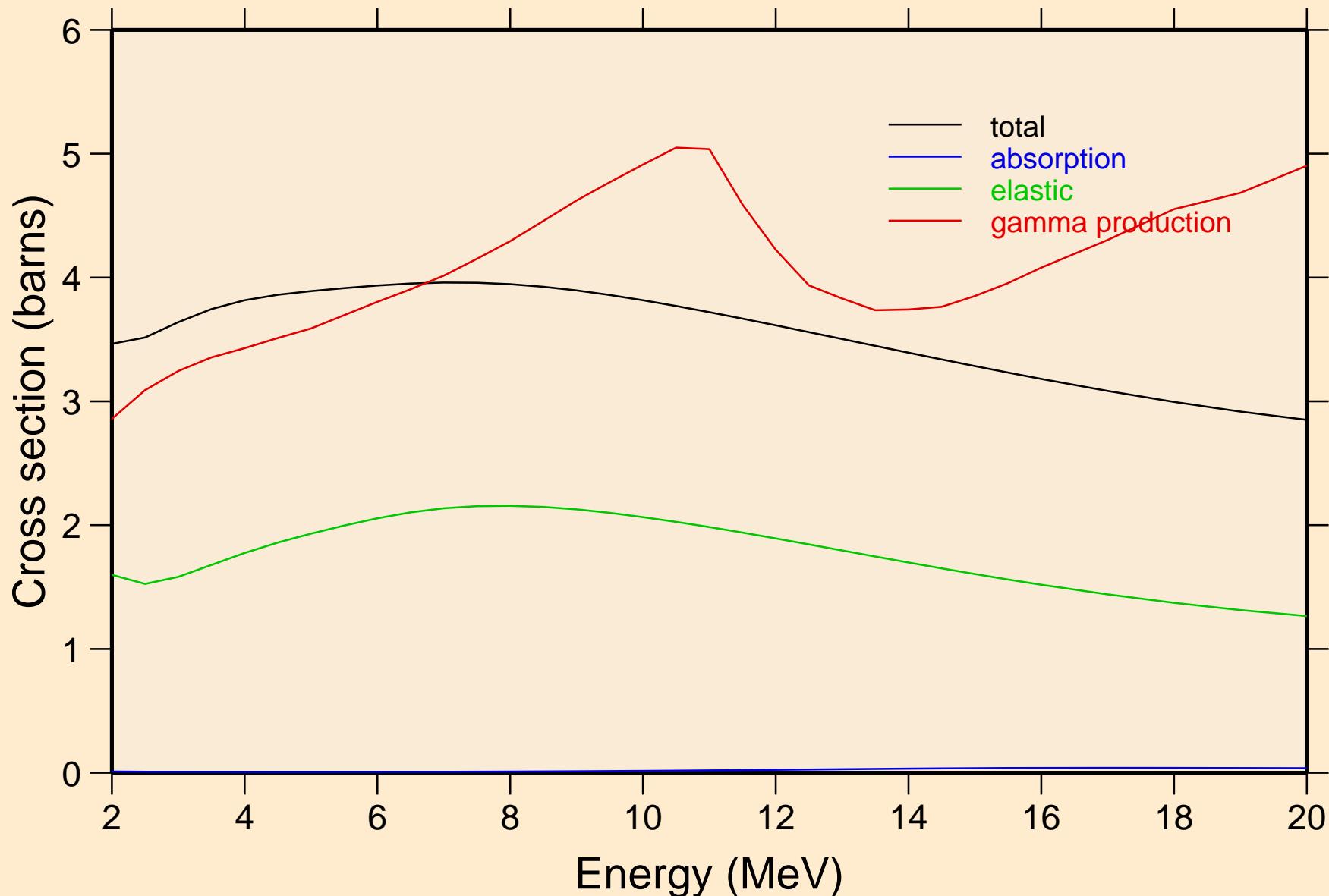
# ADVANCE CALCULATIONS

## Non-threshold reactions



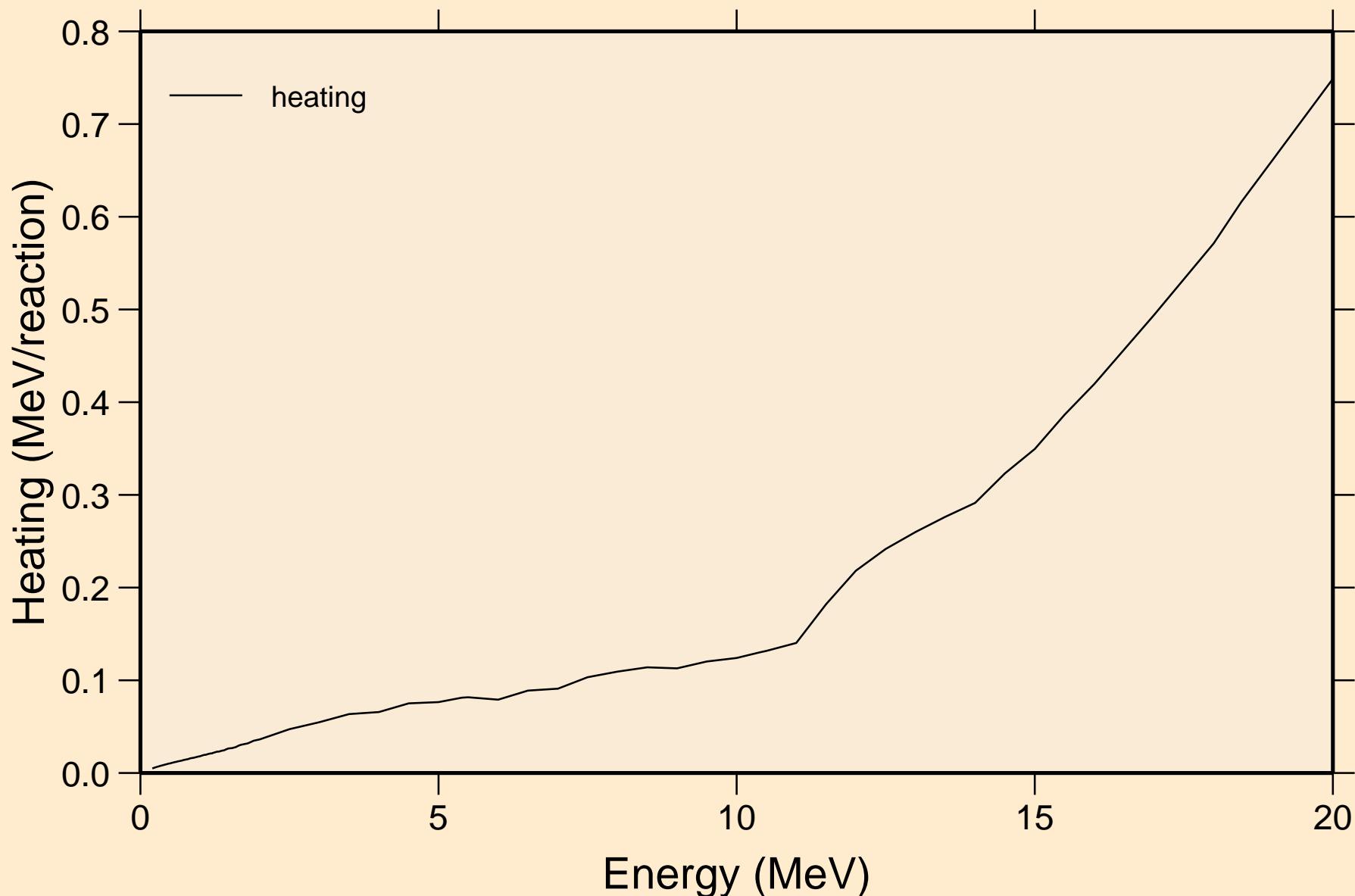
# ADVANCE CALCULATIONS

## Principal cross sections



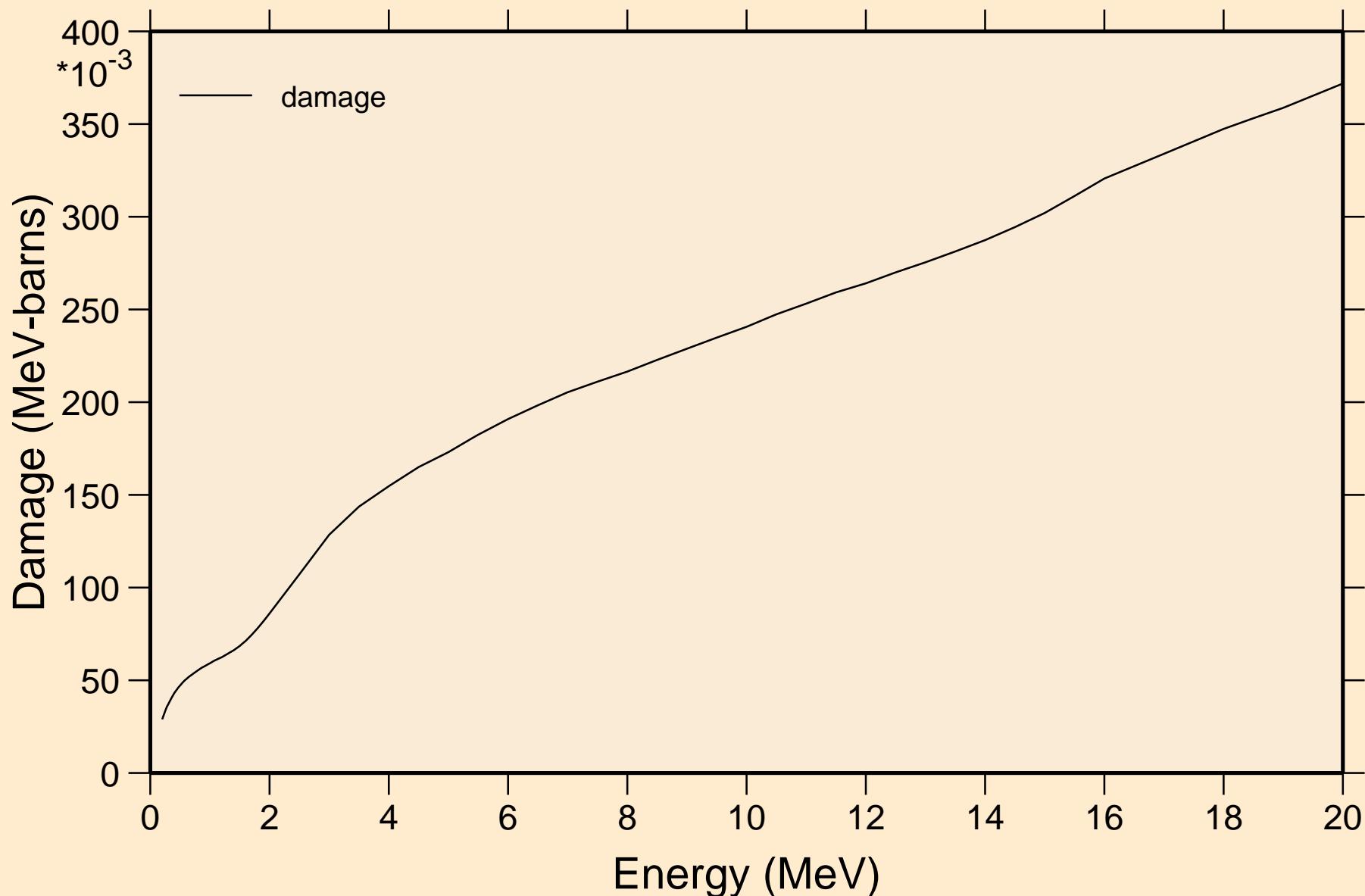
# ADVANCE CALCULATIONS

## Heating



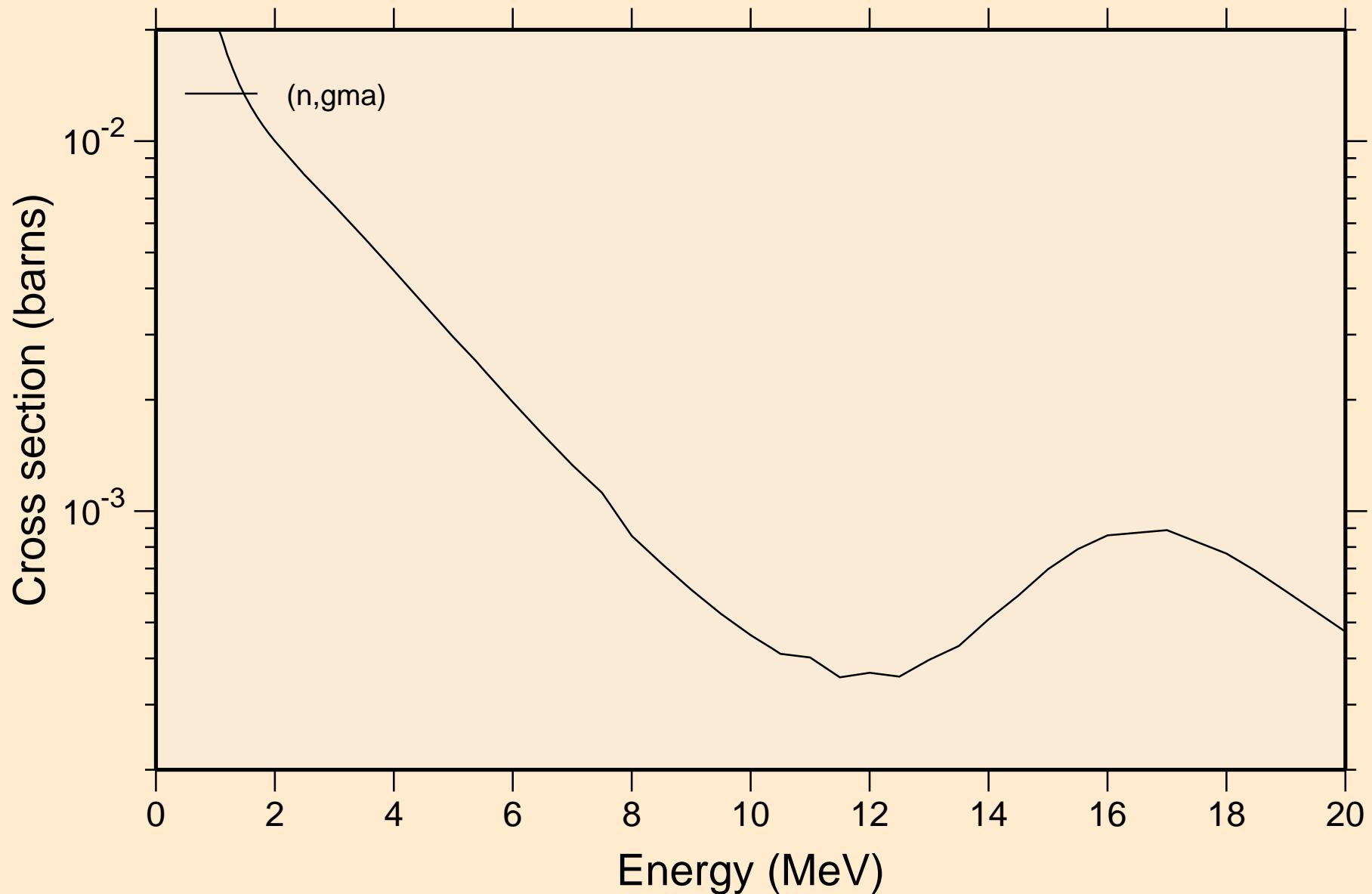
# ADVANCE CALCULATIONS

## Damage



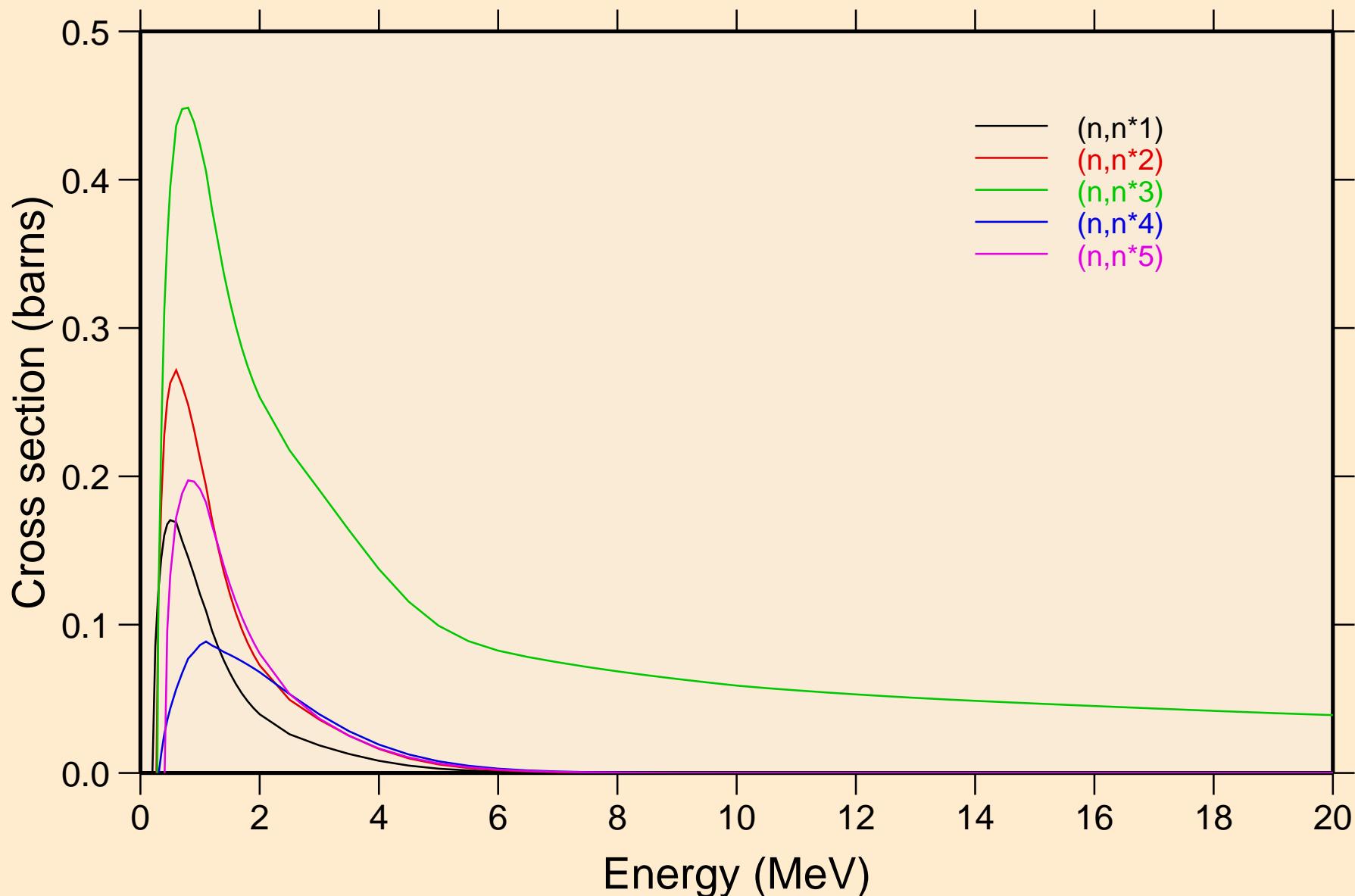
# ADVANCE CALCULATIONS

## Non-threshold reactions



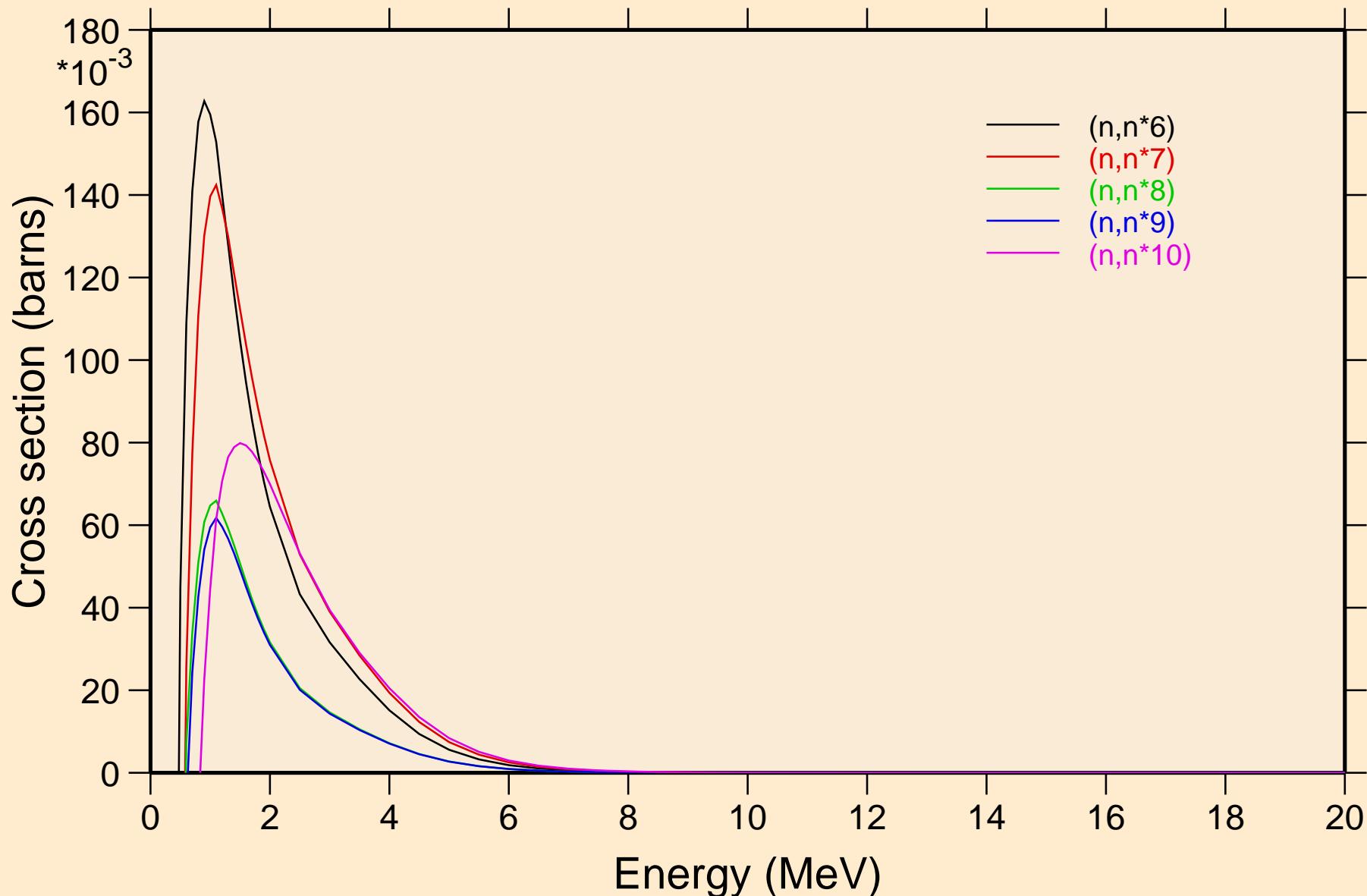
# ADVANCE CALCULATIONS

## Inelastic levels



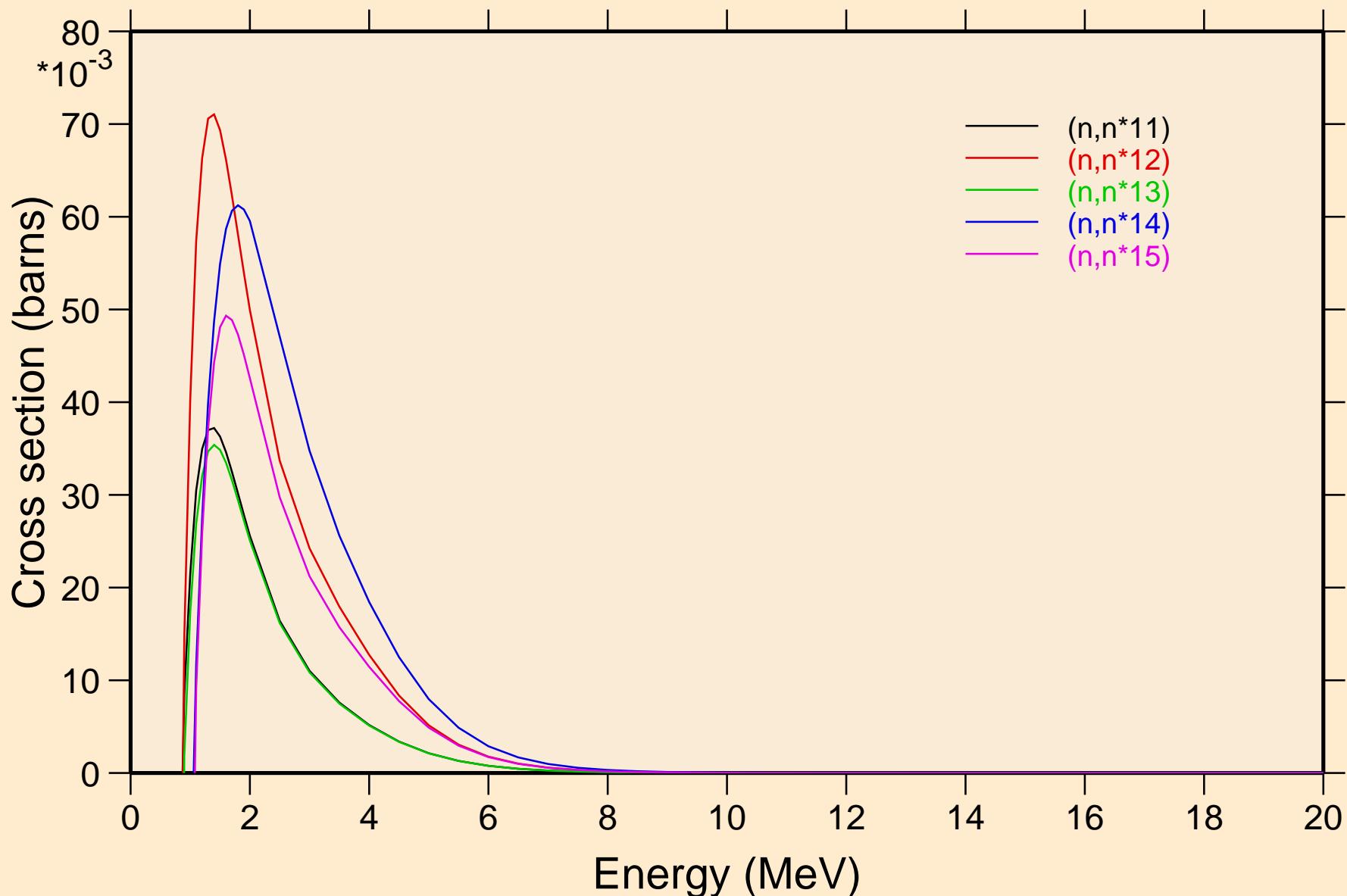
# ADVANCE CALCULATIONS

## Inelastic levels



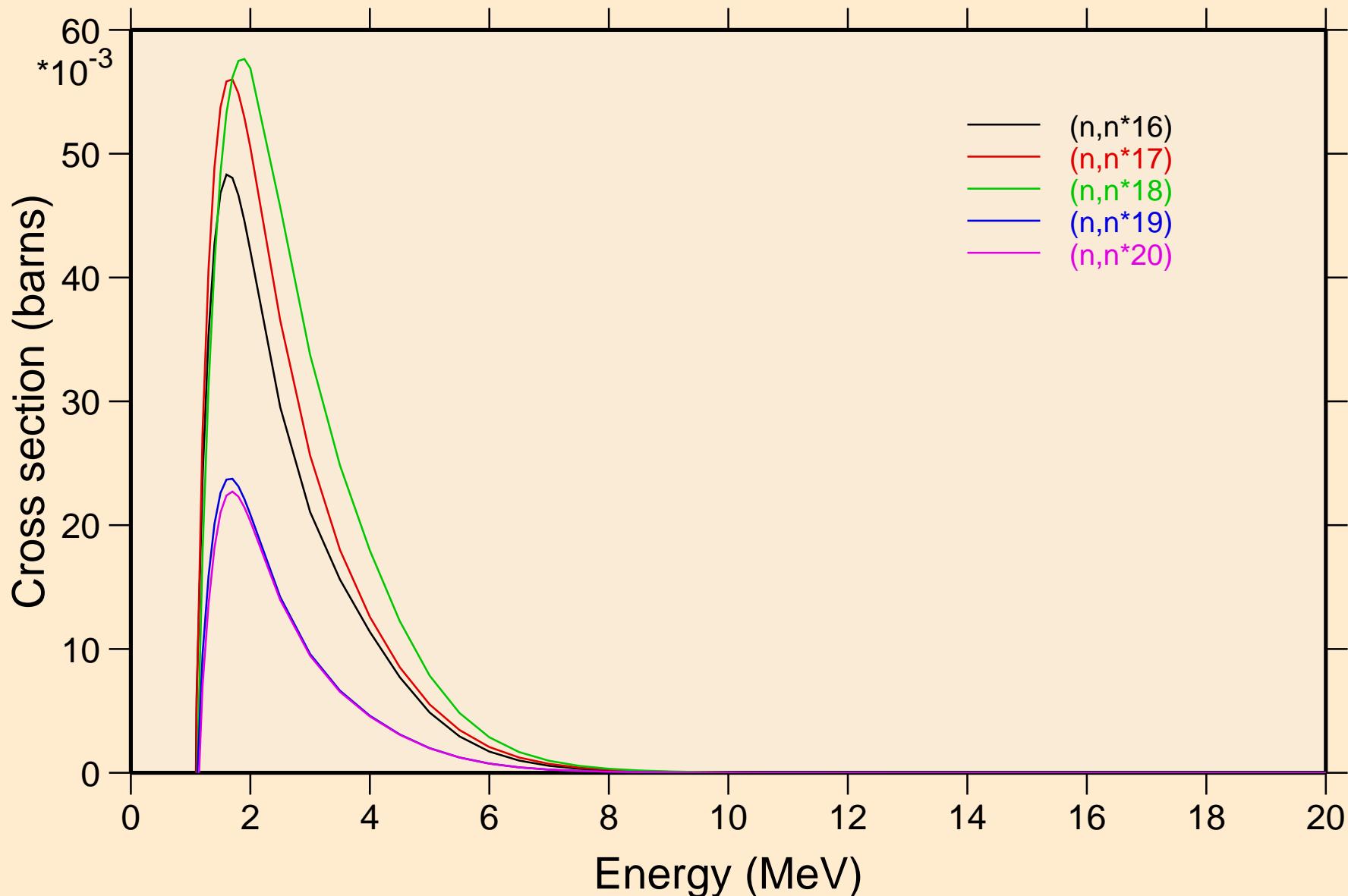
# ADVANCE CALCULATIONS

## Inelastic levels



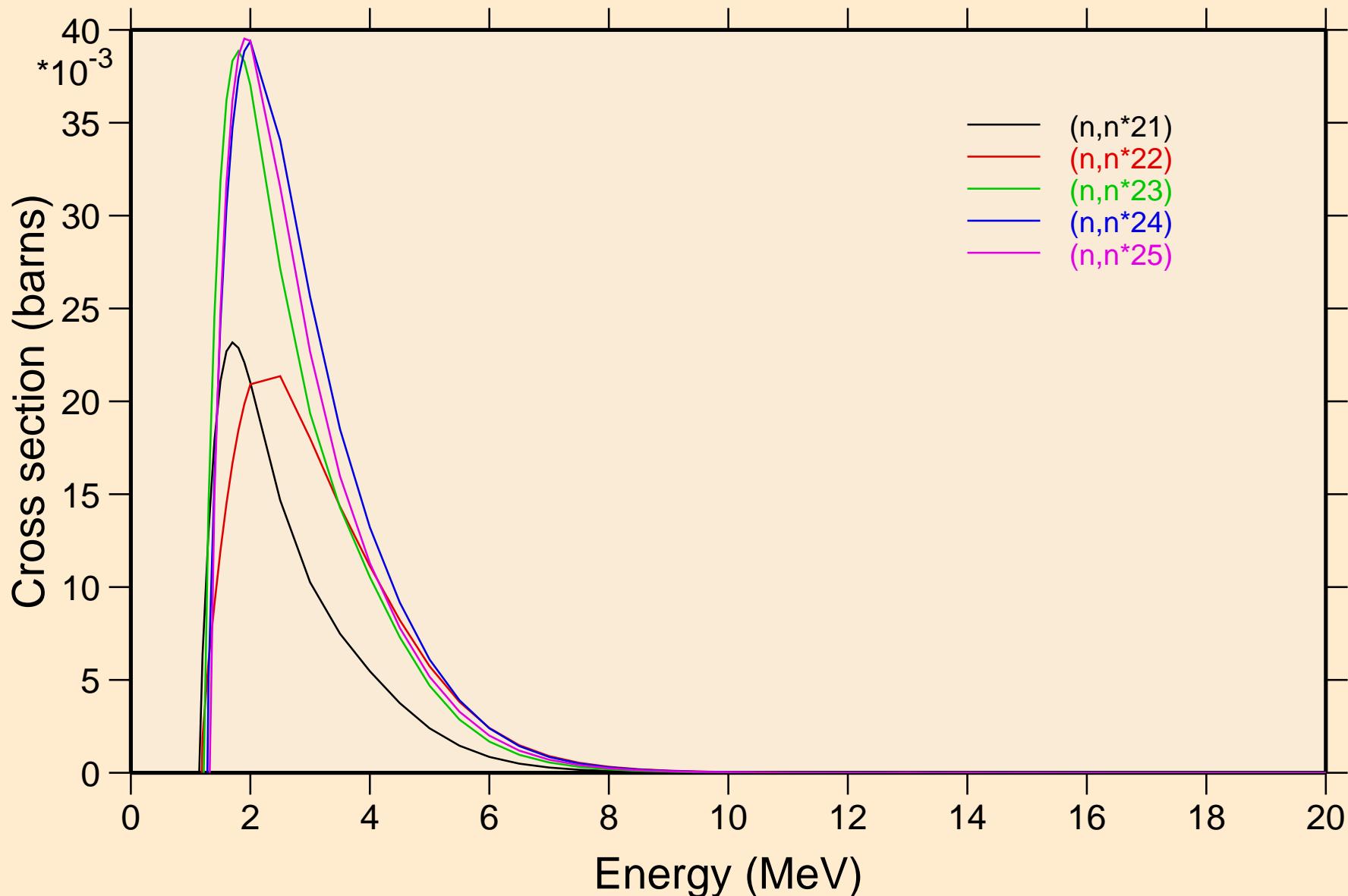
# ADVANCE CALCULATIONS

## Inelastic levels



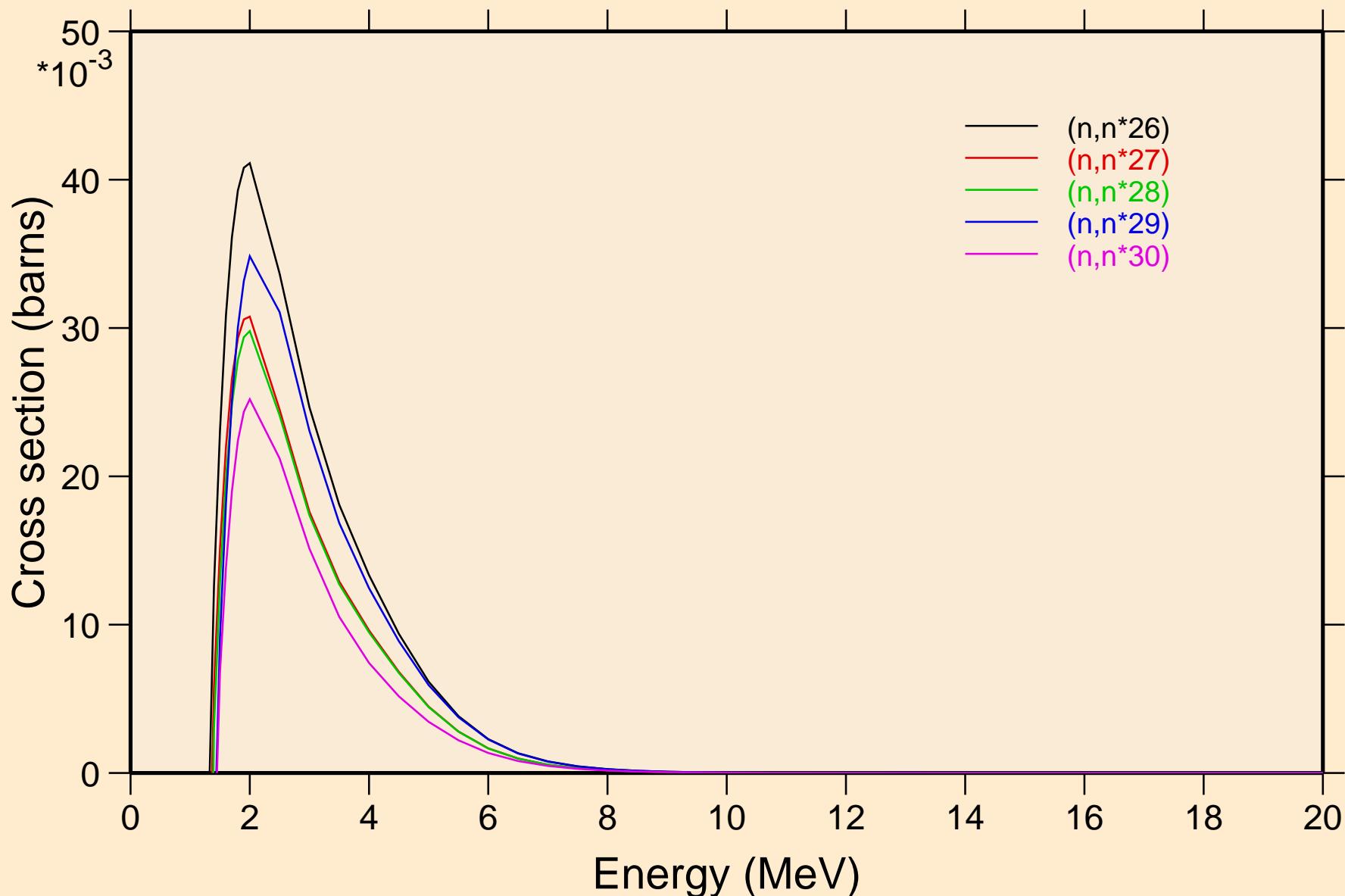
# ADVANCE CALCULATIONS

## Inelastic levels



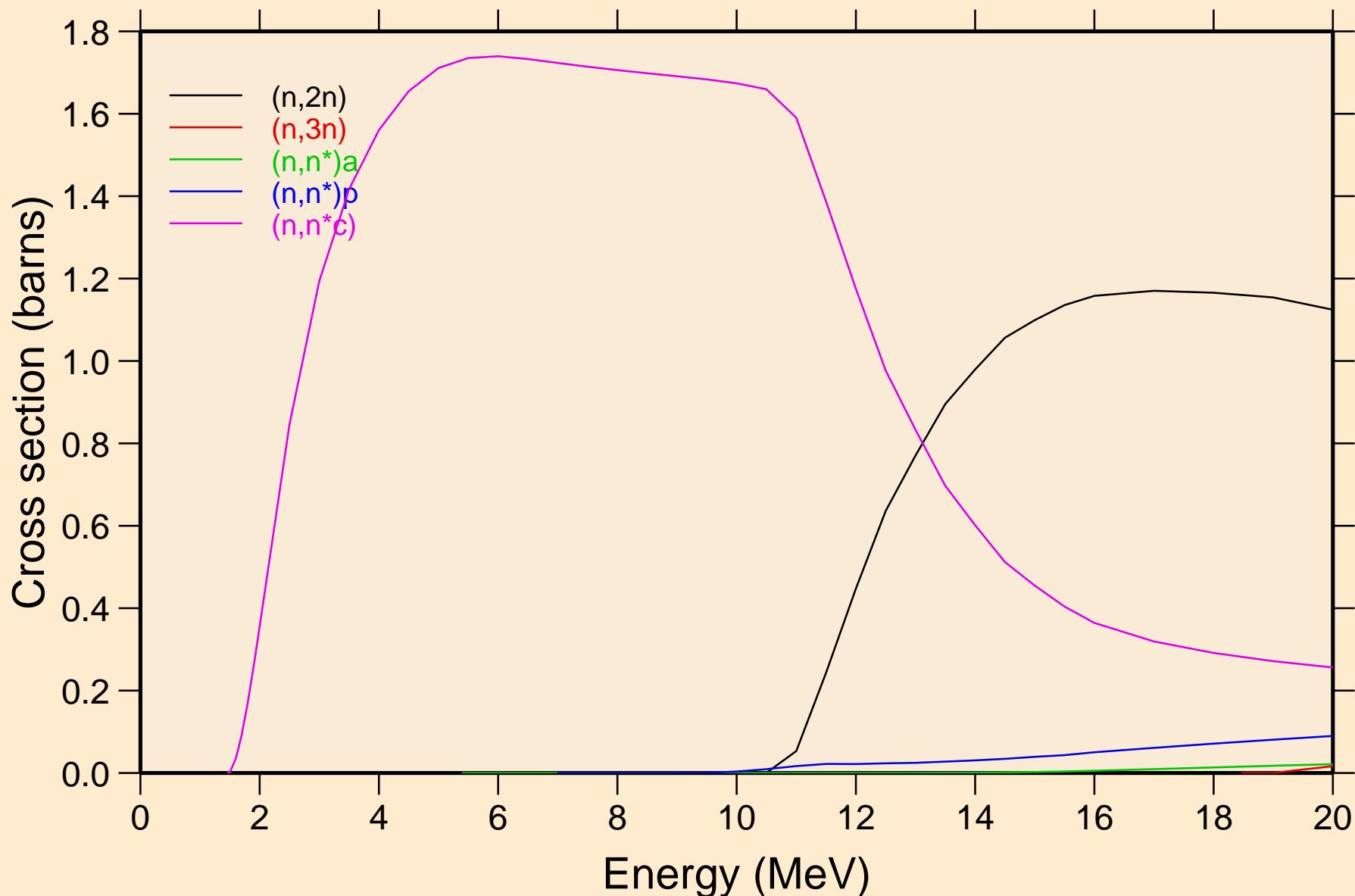
# ADVANCE CALCULATIONS

## Inelastic levels



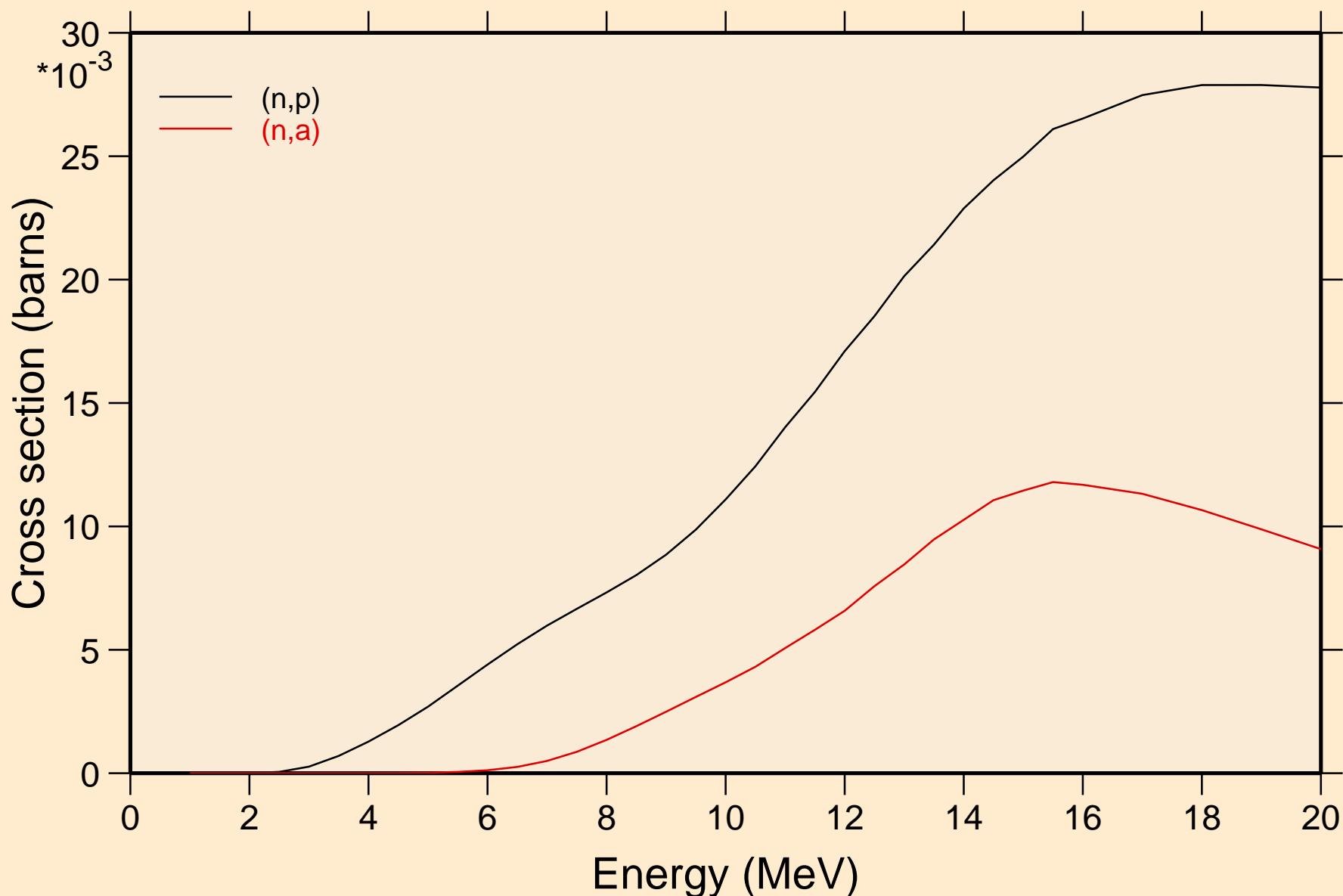
# ADVANCE CALCULATIONS

## Threshold reactions



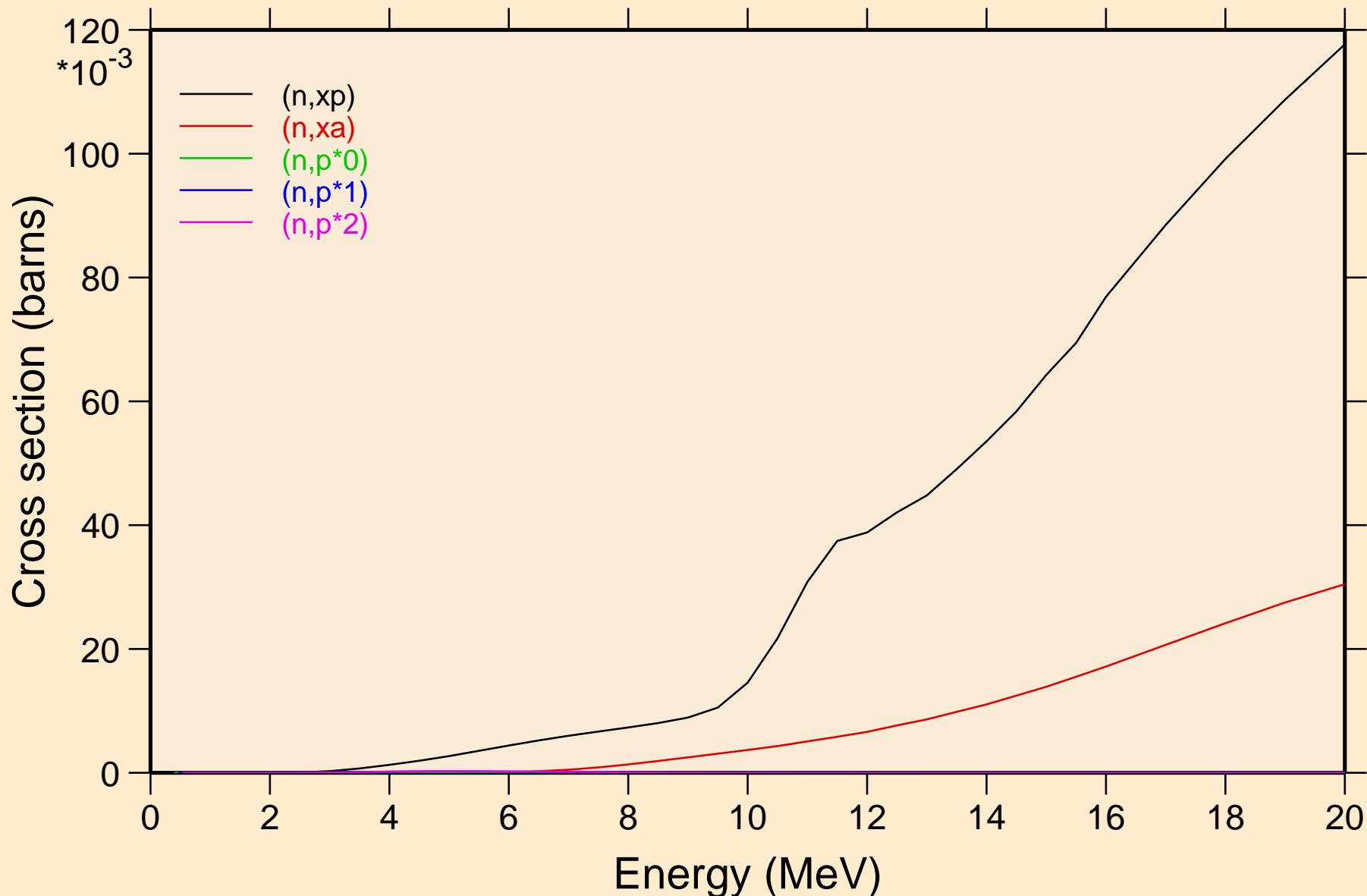
# ADVANCE CALCULATIONS

## Threshold reactions



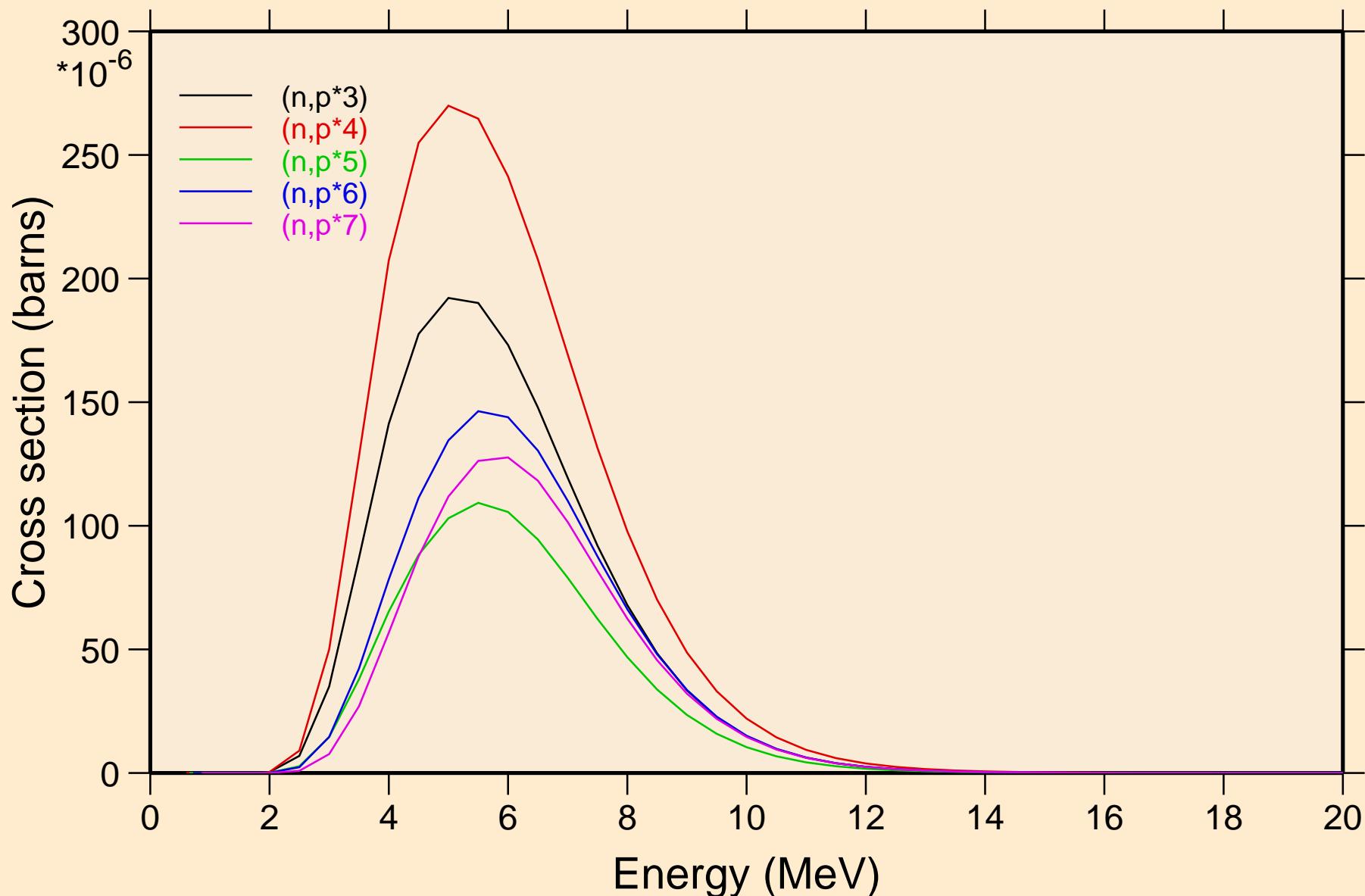
# ADVANCE CALCULATIONS

## Threshold reactions



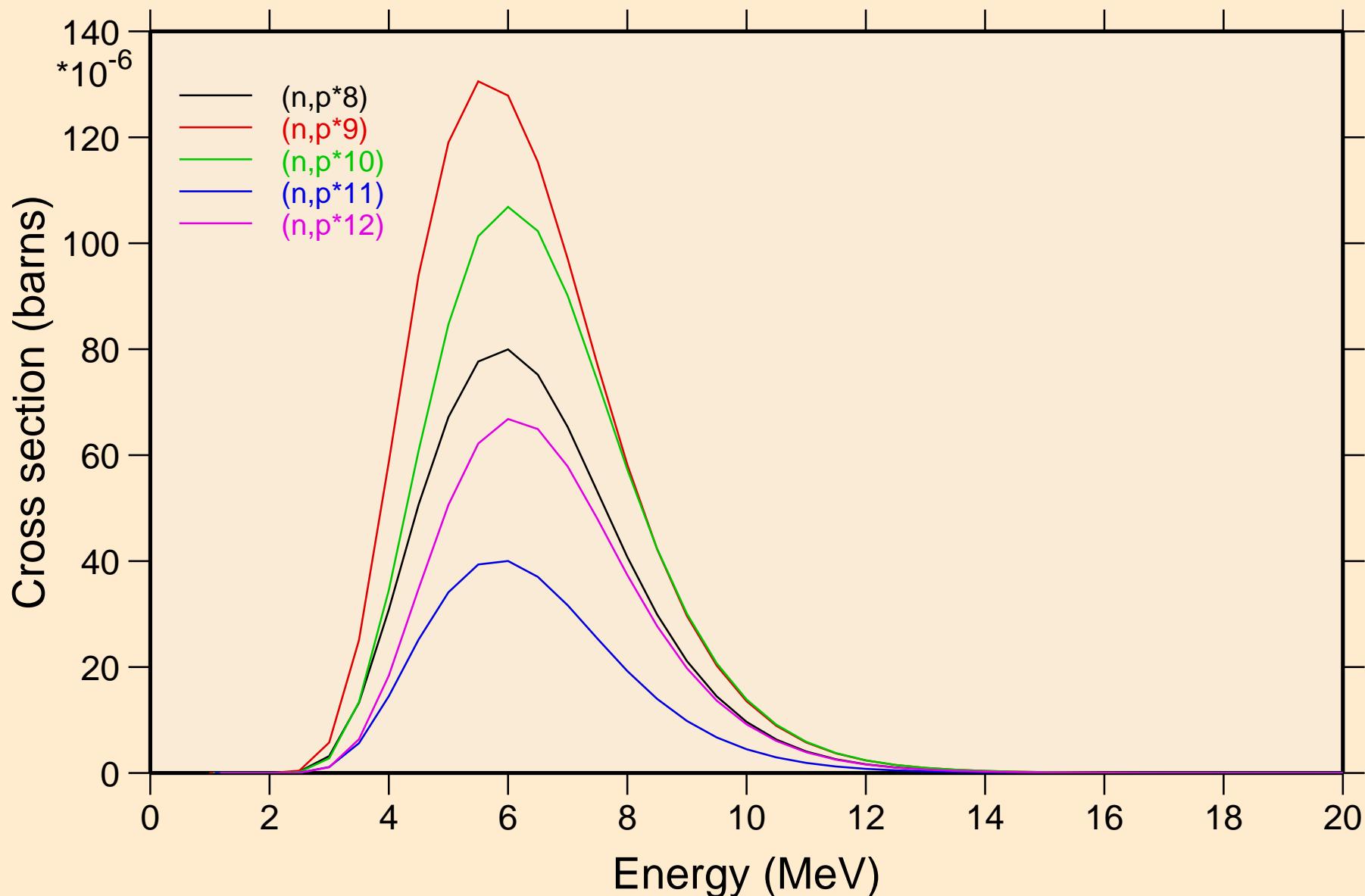
# ADVANCE CALCULATIONS

## Threshold reactions



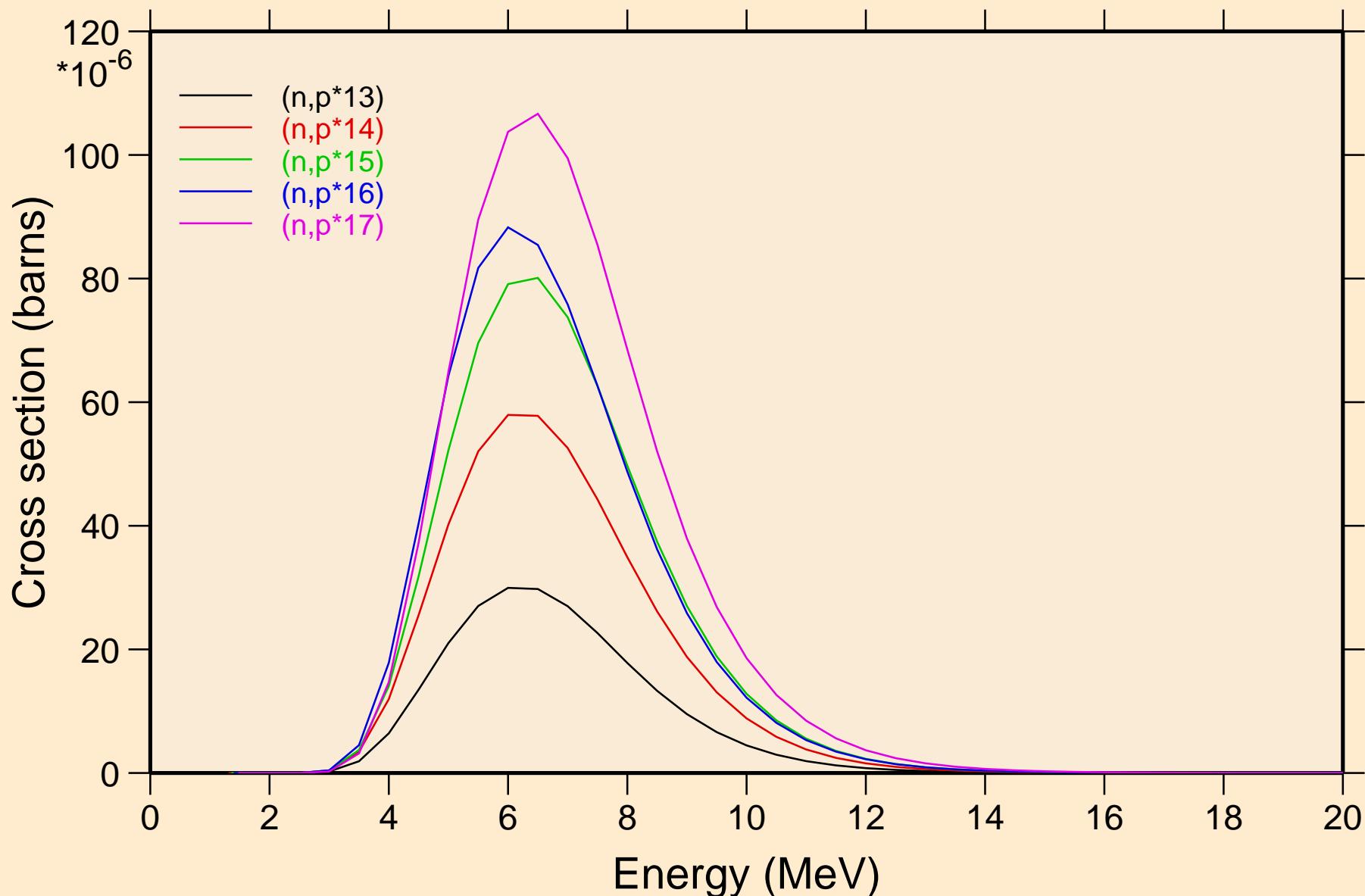
# ADVANCE CALCULATIONS

## Threshold reactions



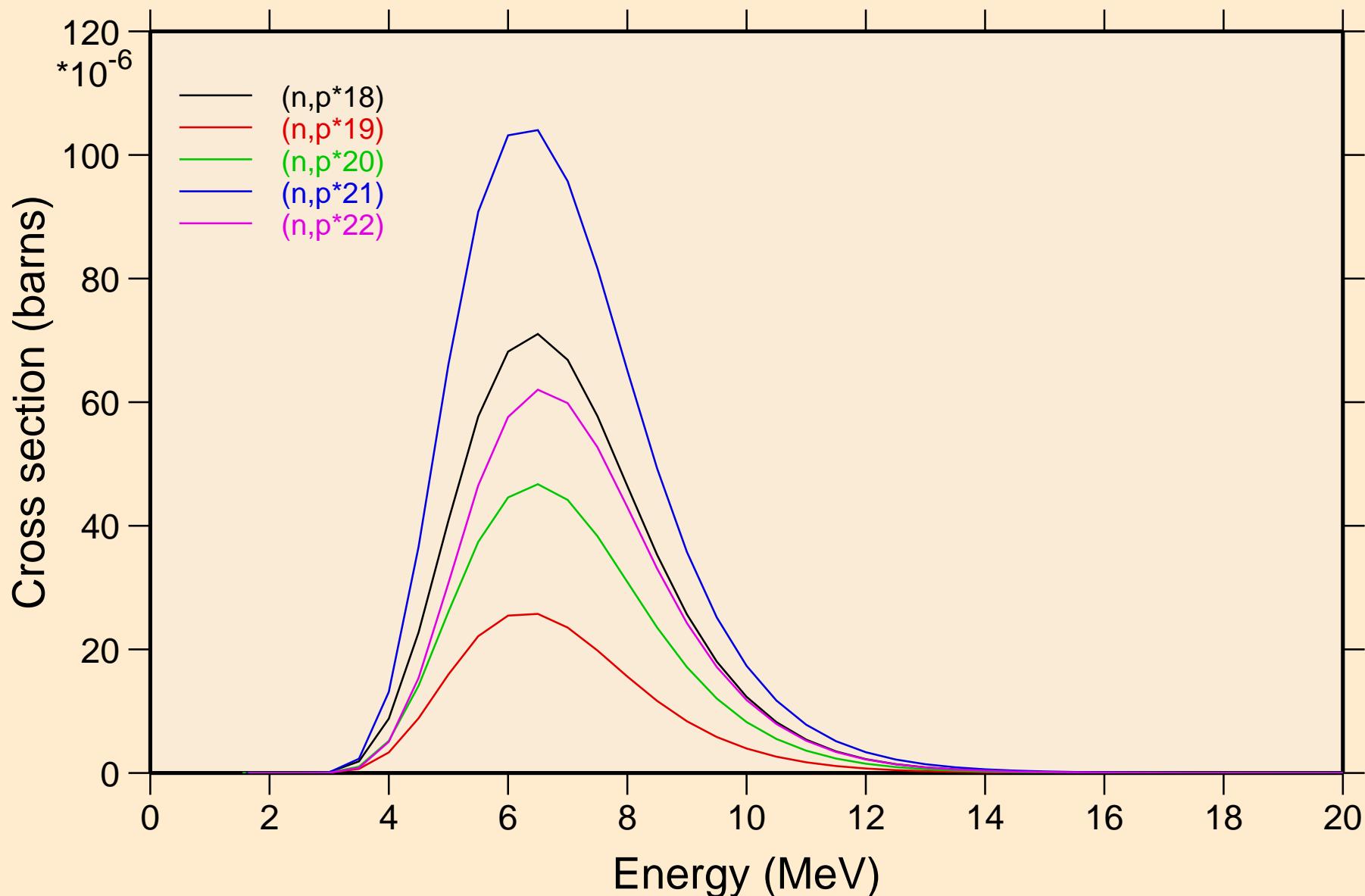
# ADVANCE CALCULATIONS

## Threshold reactions



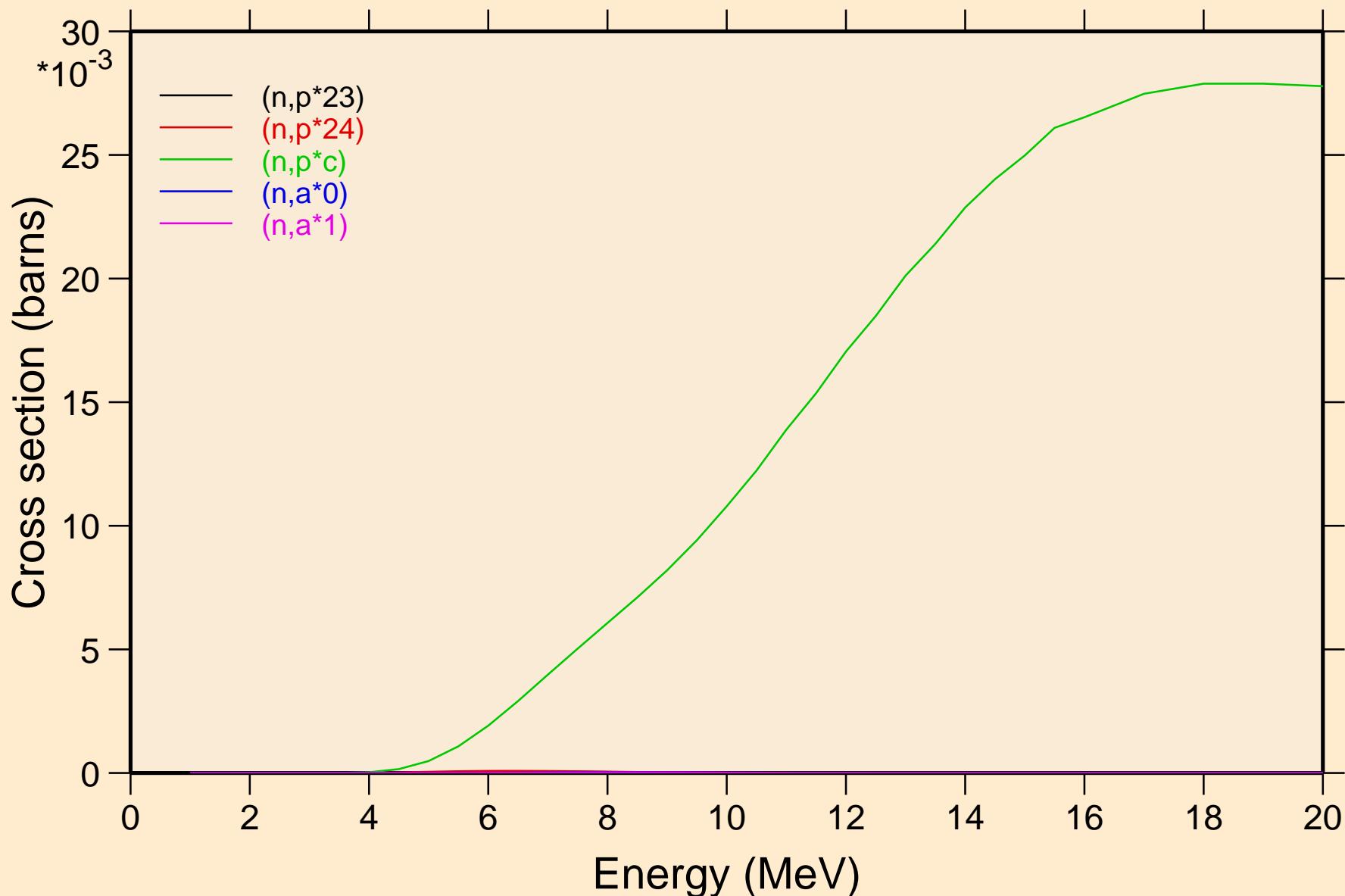
# ADVANCE CALCULATIONS

## Threshold reactions



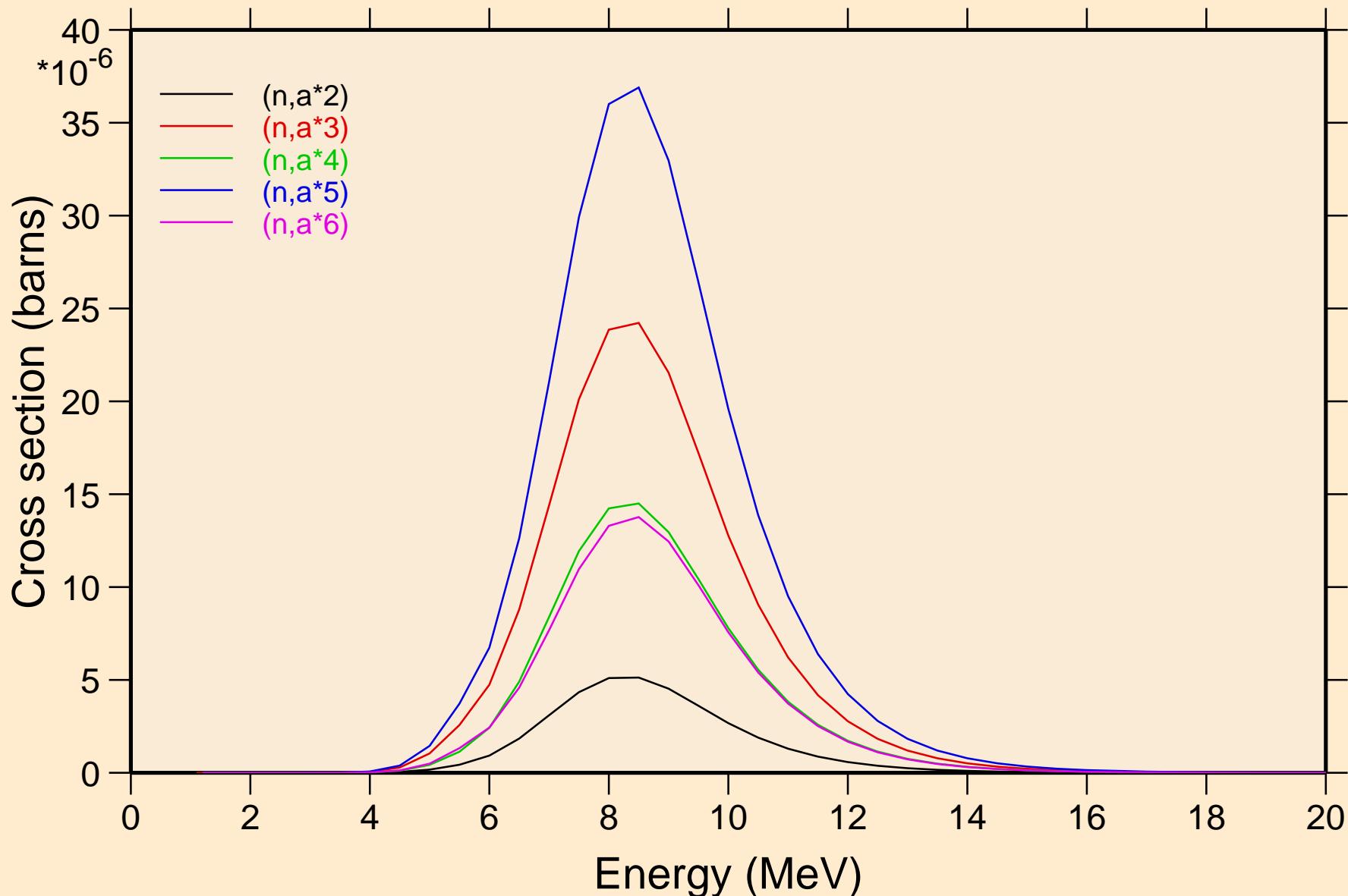
# ADVANCE CALCULATIONS

## Threshold reactions



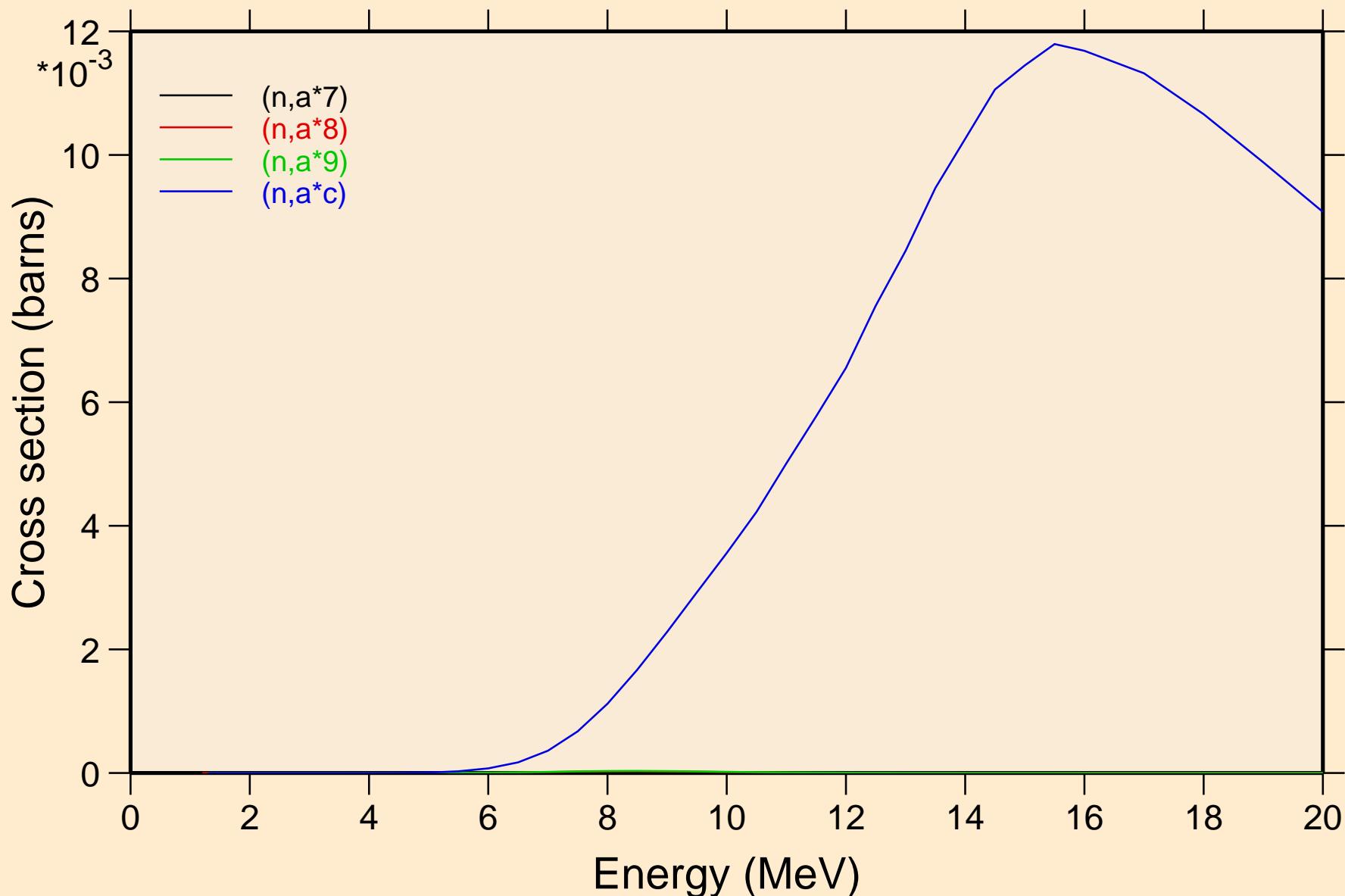
# ADVANCE CALCULATIONS

## Threshold reactions



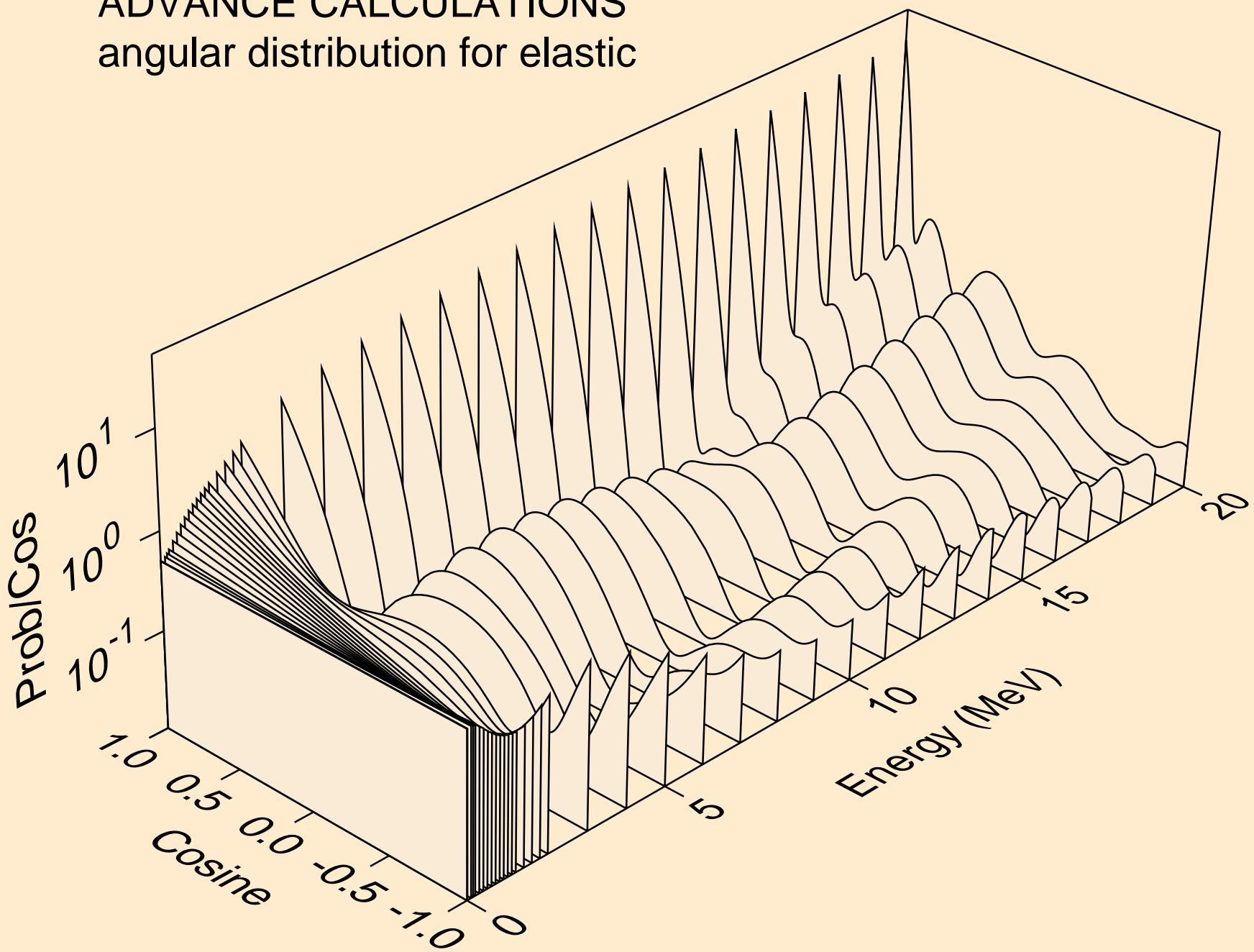
# ADVANCE CALCULATIONS

## Threshold reactions



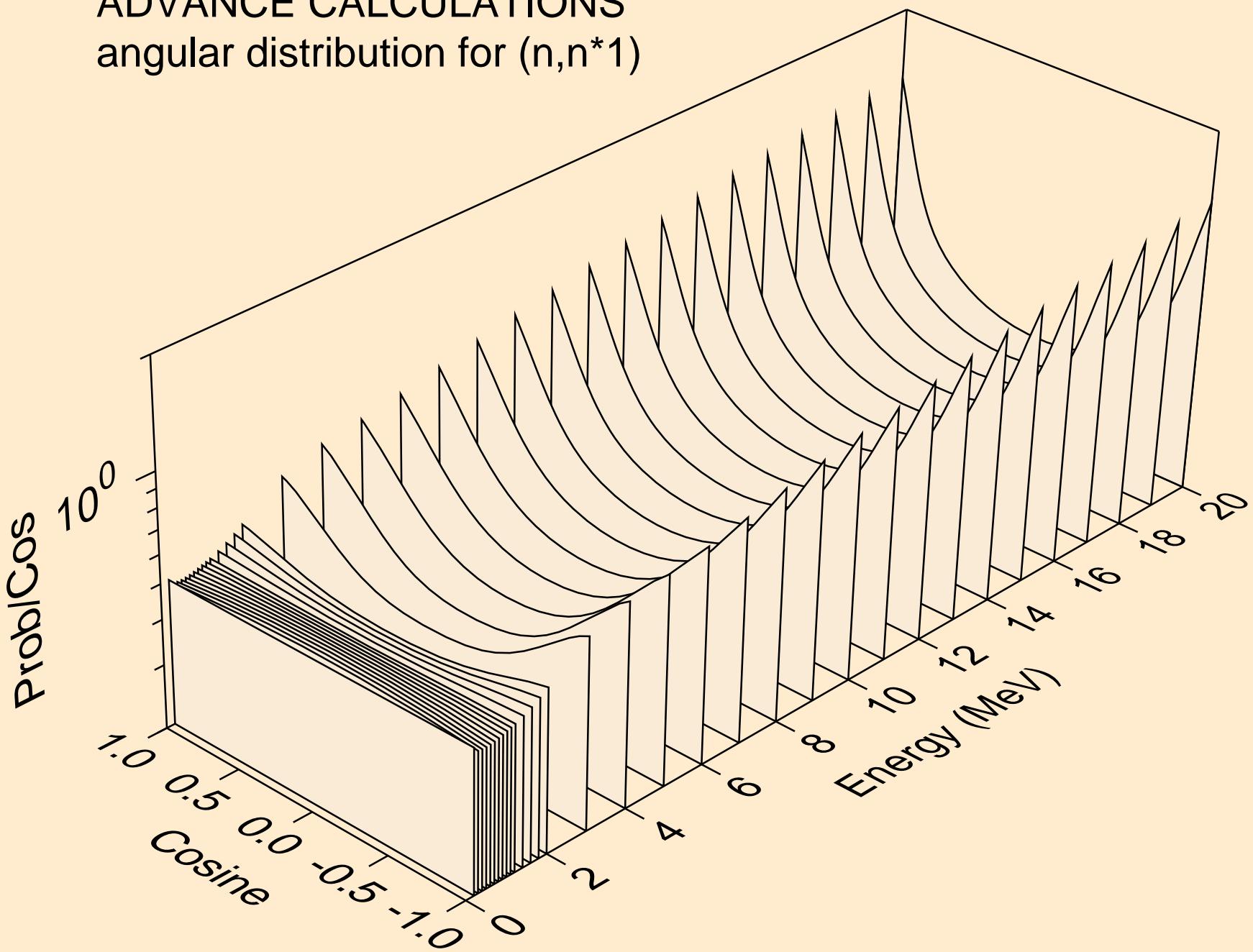
# ADVANCE CALCULATIONS

angular distribution for elastic



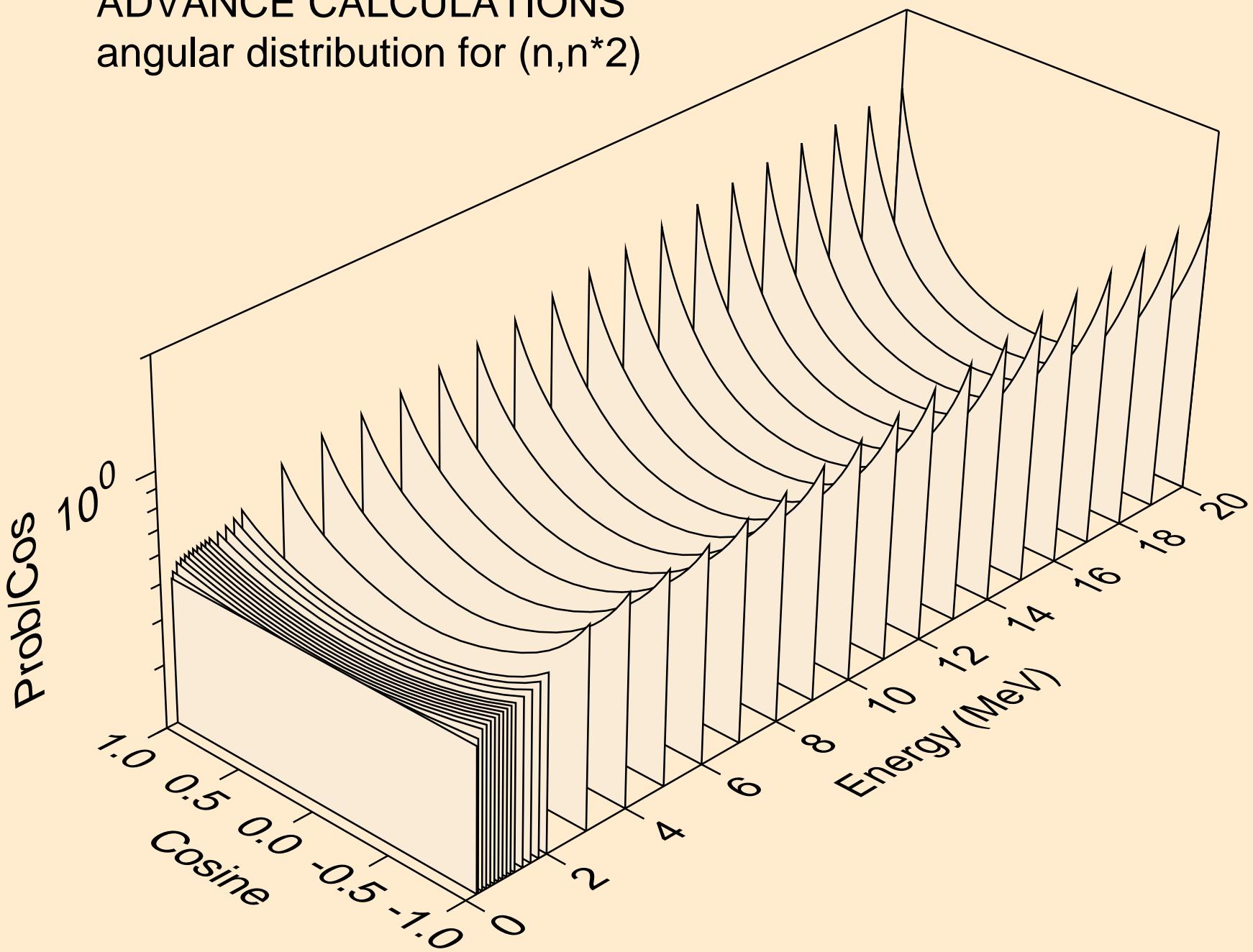
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*1)



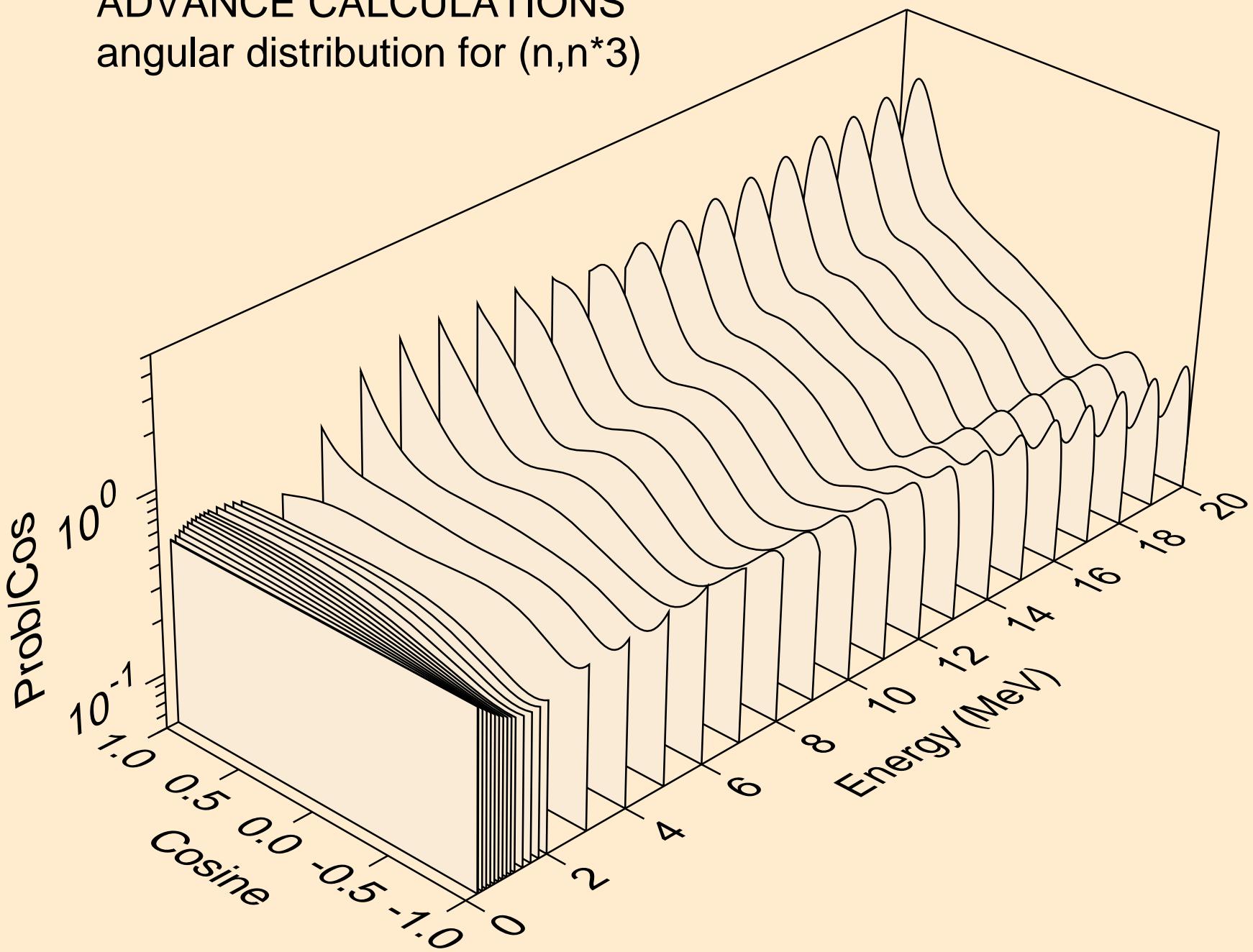
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*)$



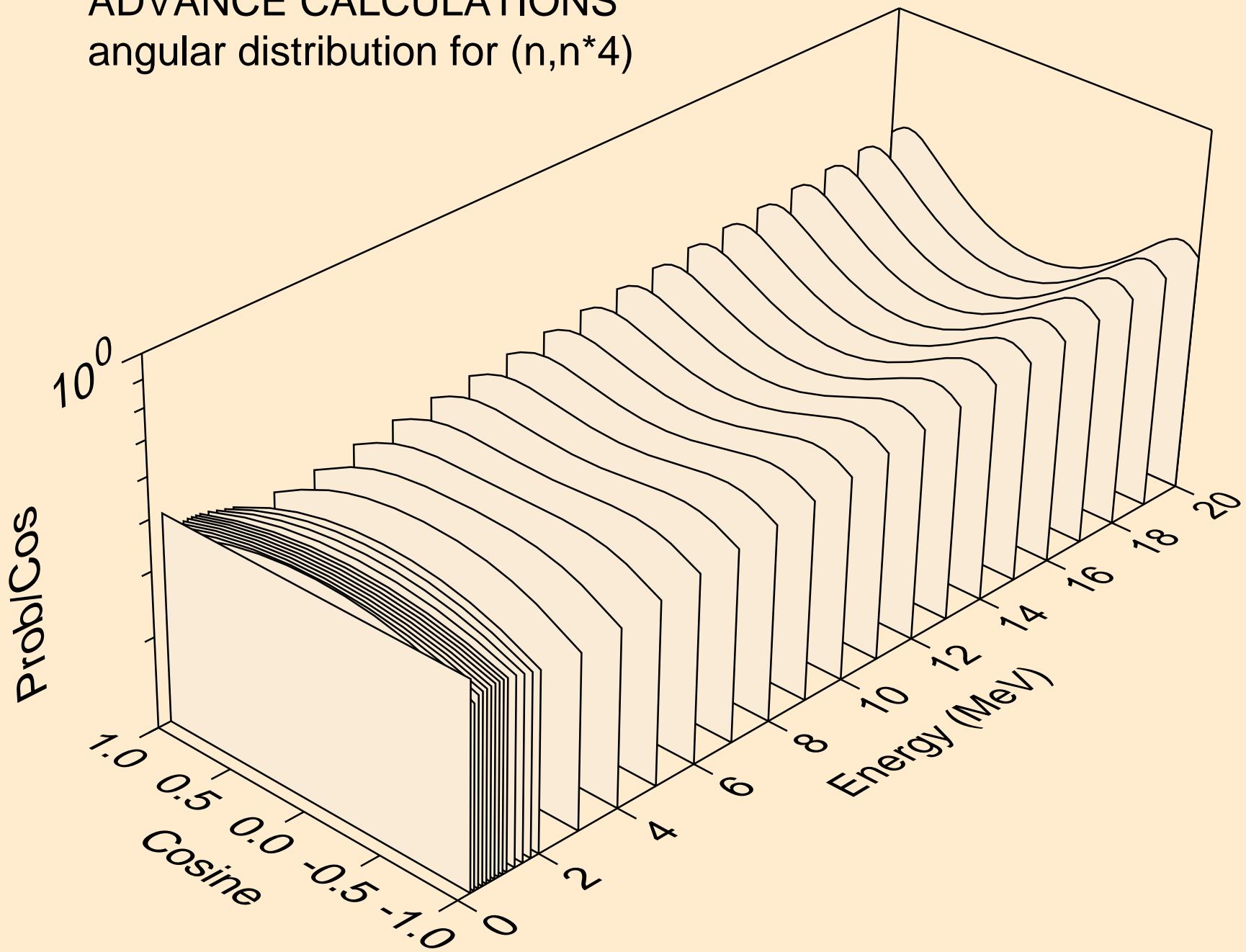
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*)^3$



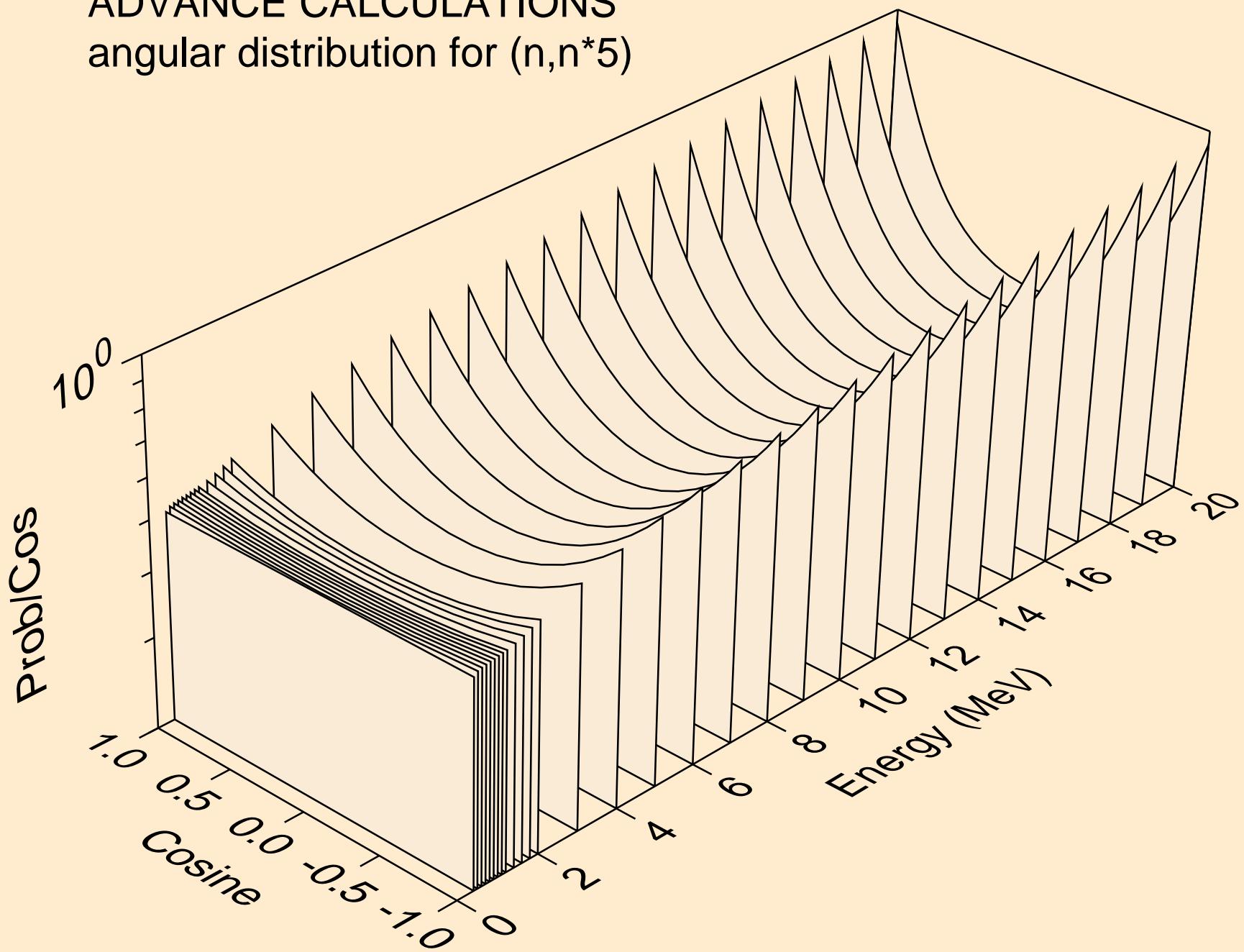
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*4)$



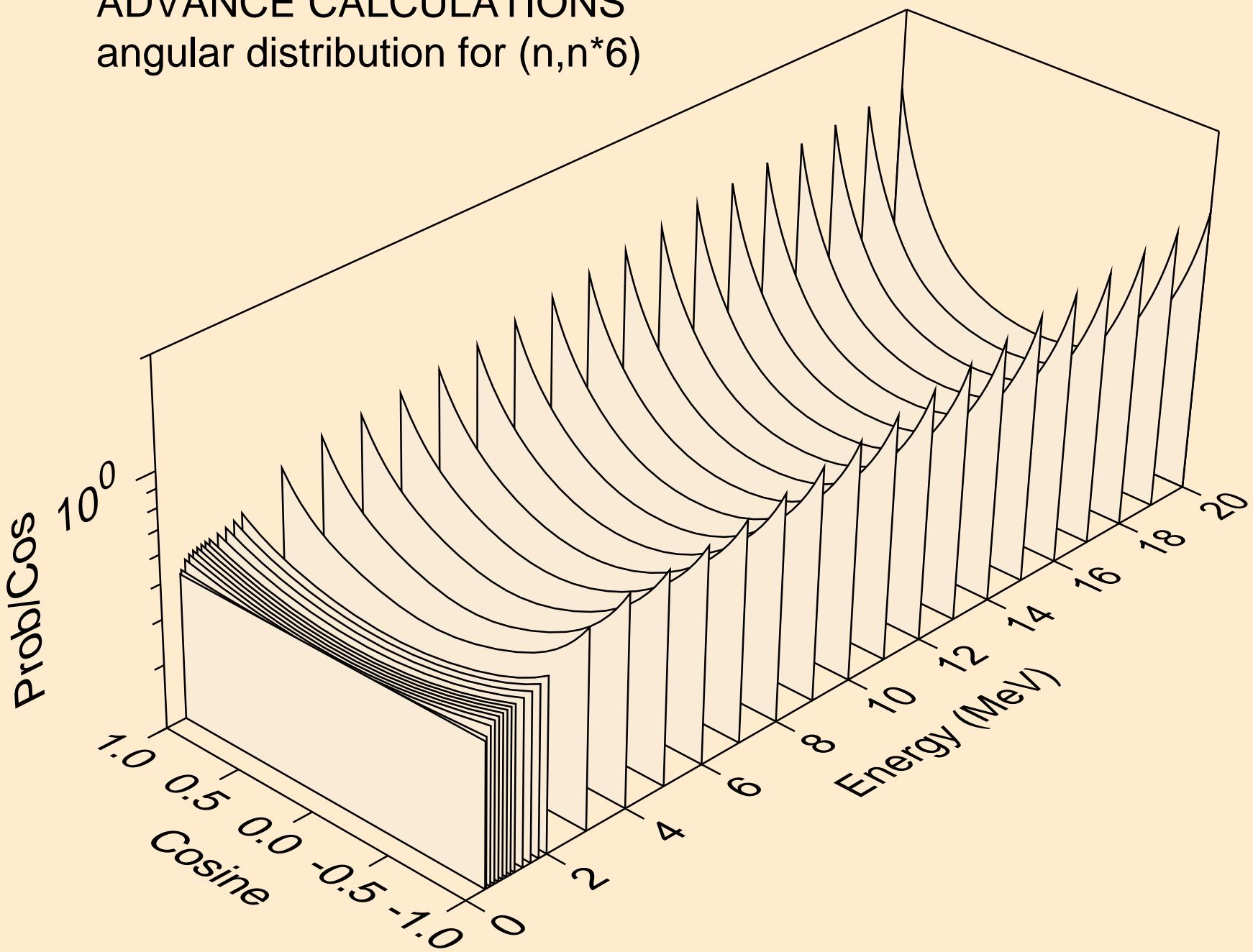
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*)$



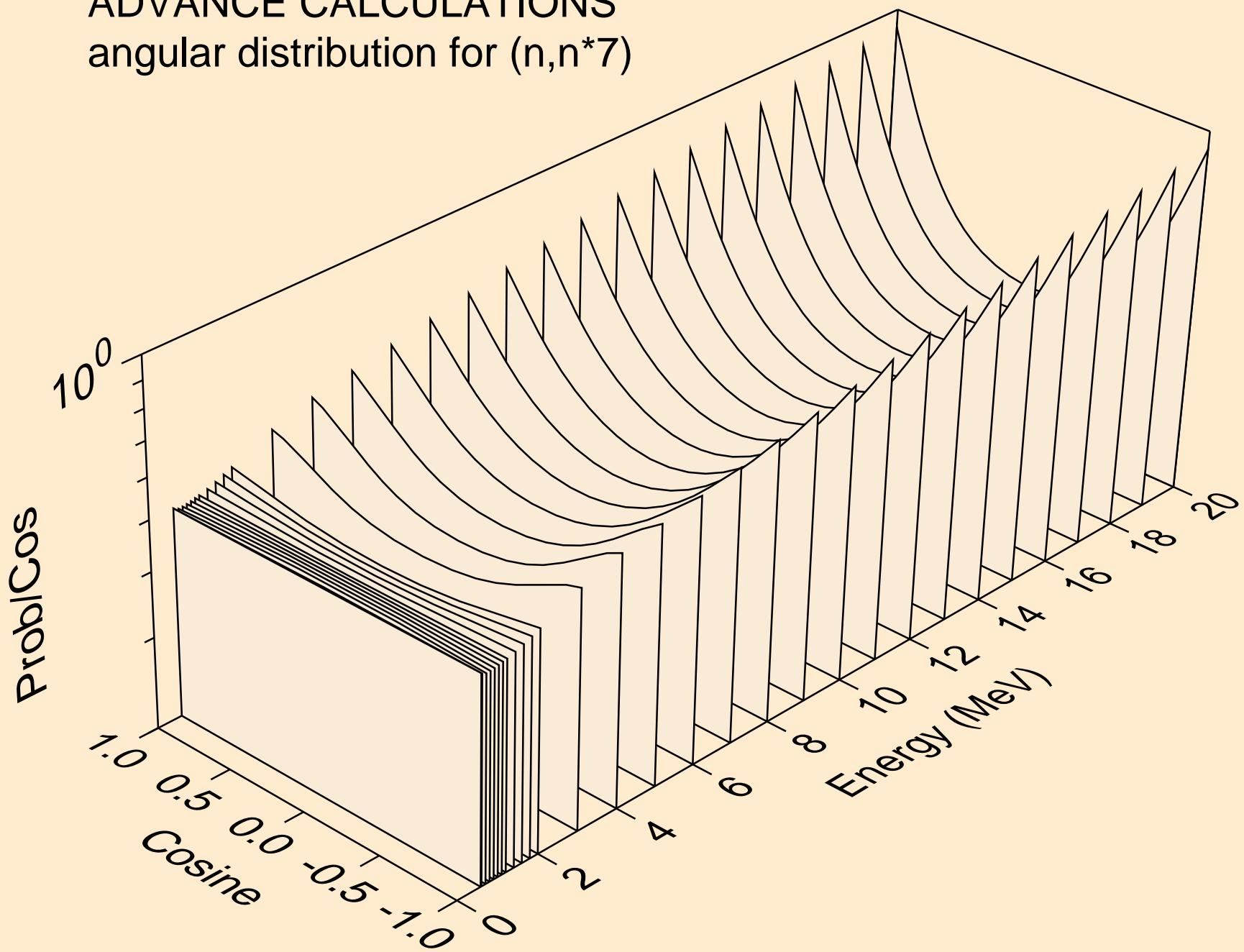
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*6)$



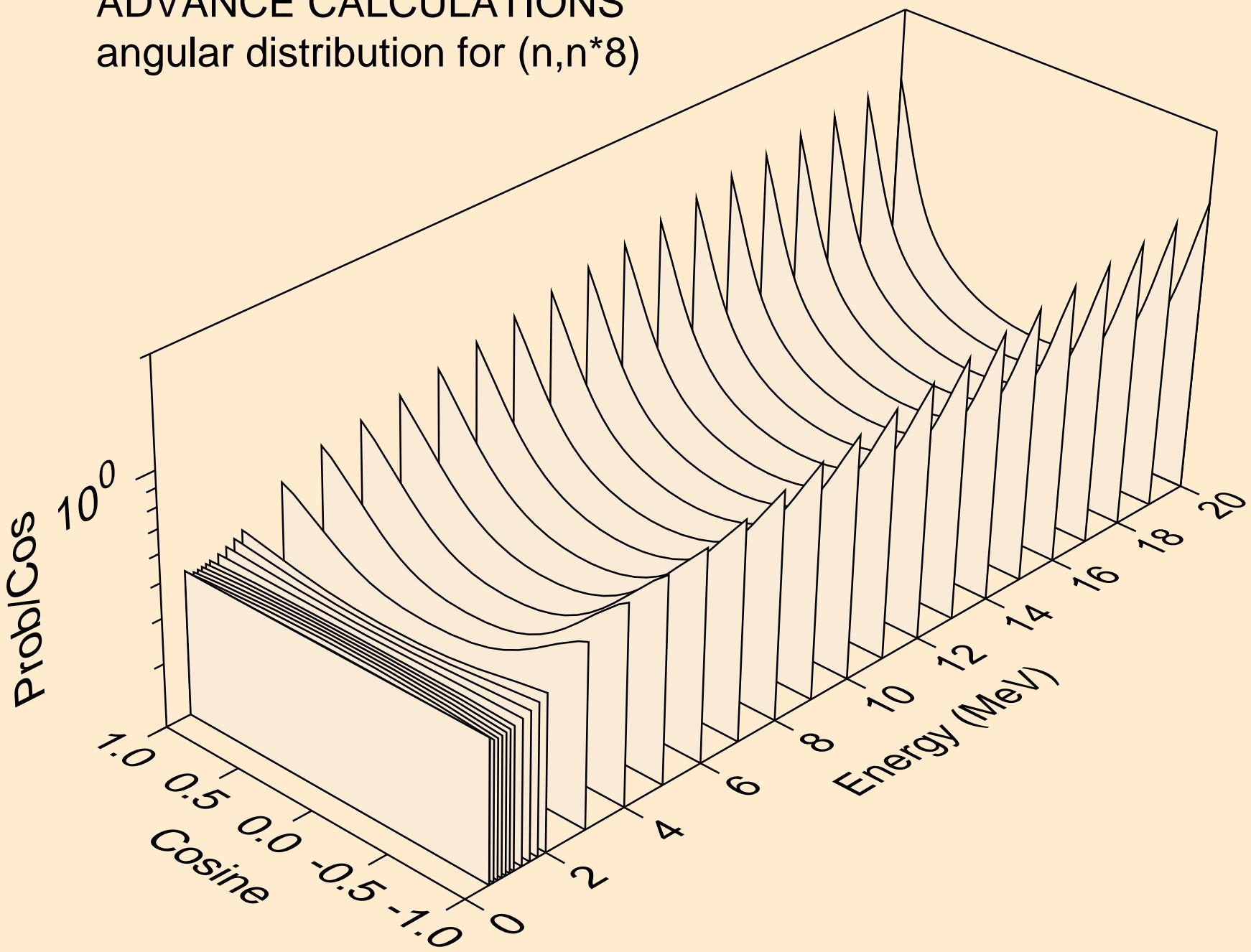
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*7)$



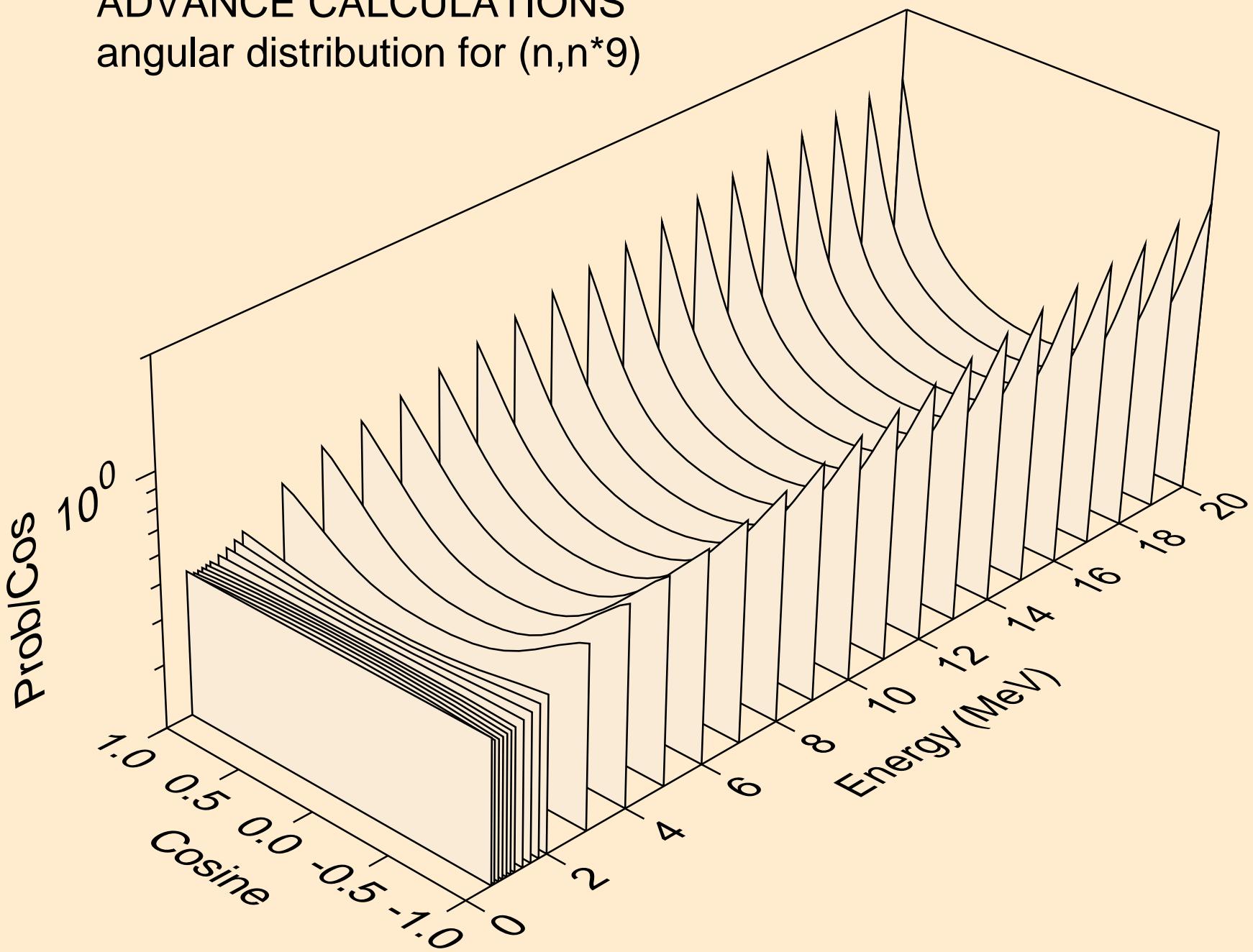
# ADVANCE CALCULATIONS

## angular distribution for $(n,n^*)^8$



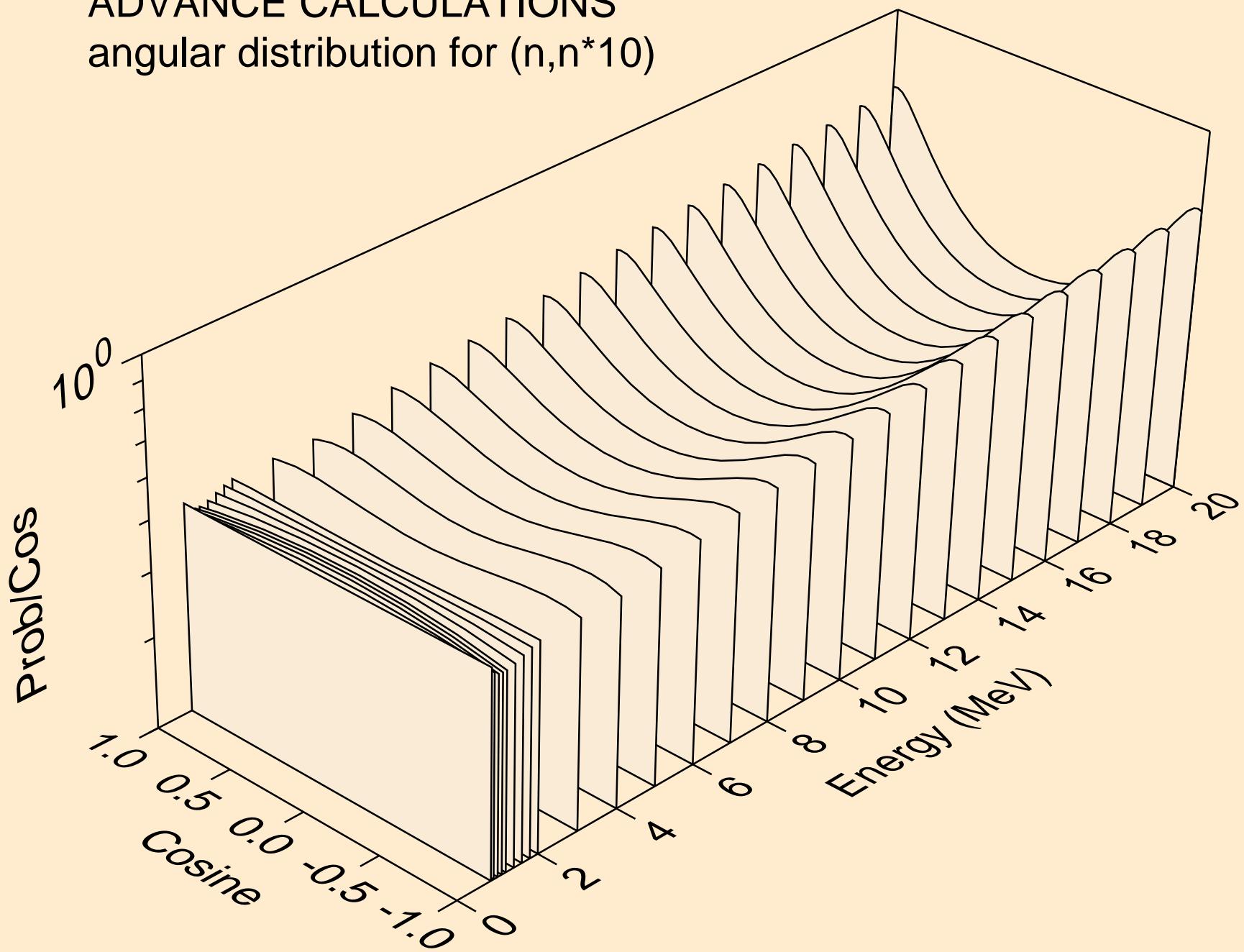
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*)$



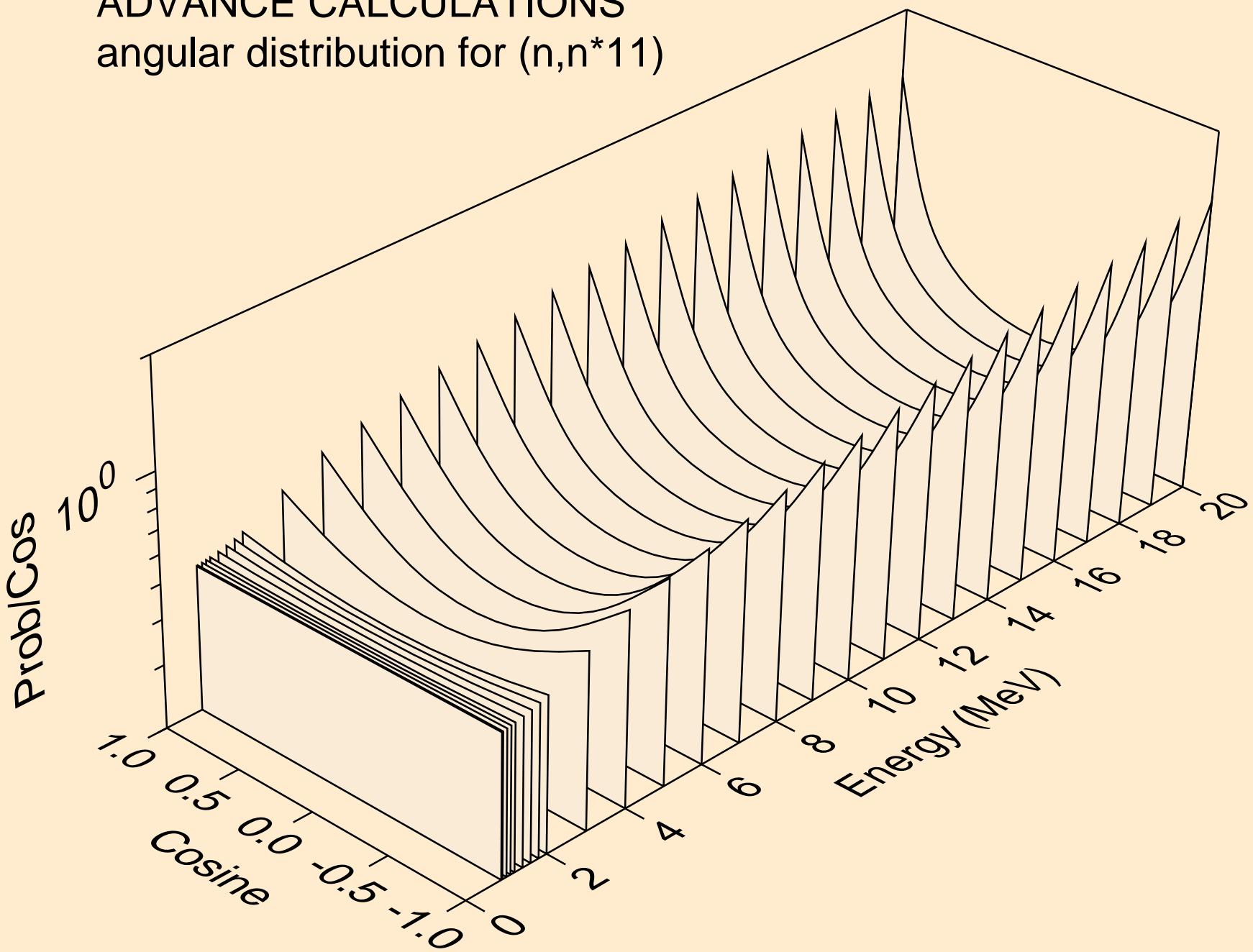
# ADVANCE CALCULATIONS

angular distribution for  $(n,n*10)$



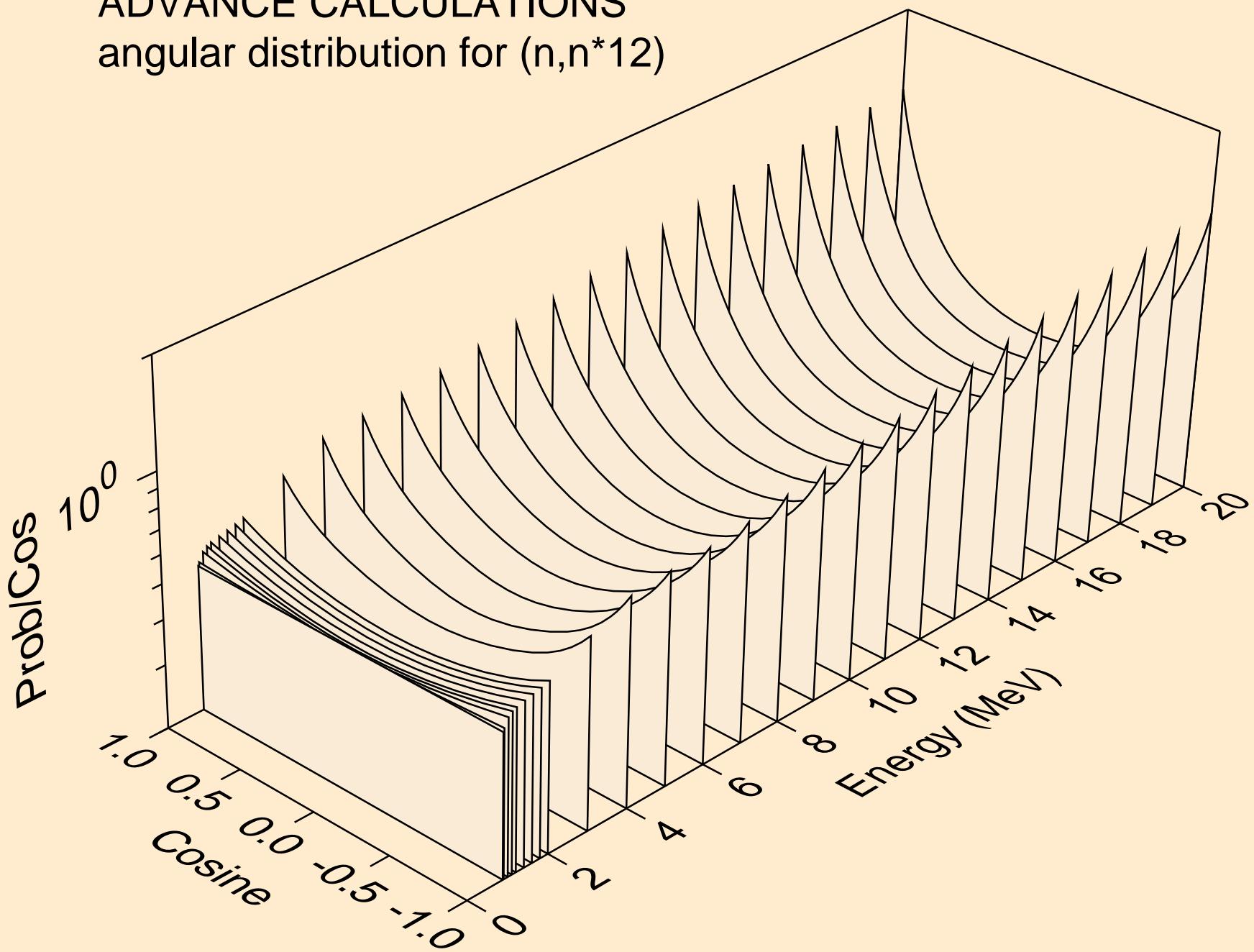
# ADVANCE CALCULATIONS

## angular distribution for $(n,n^*11)$



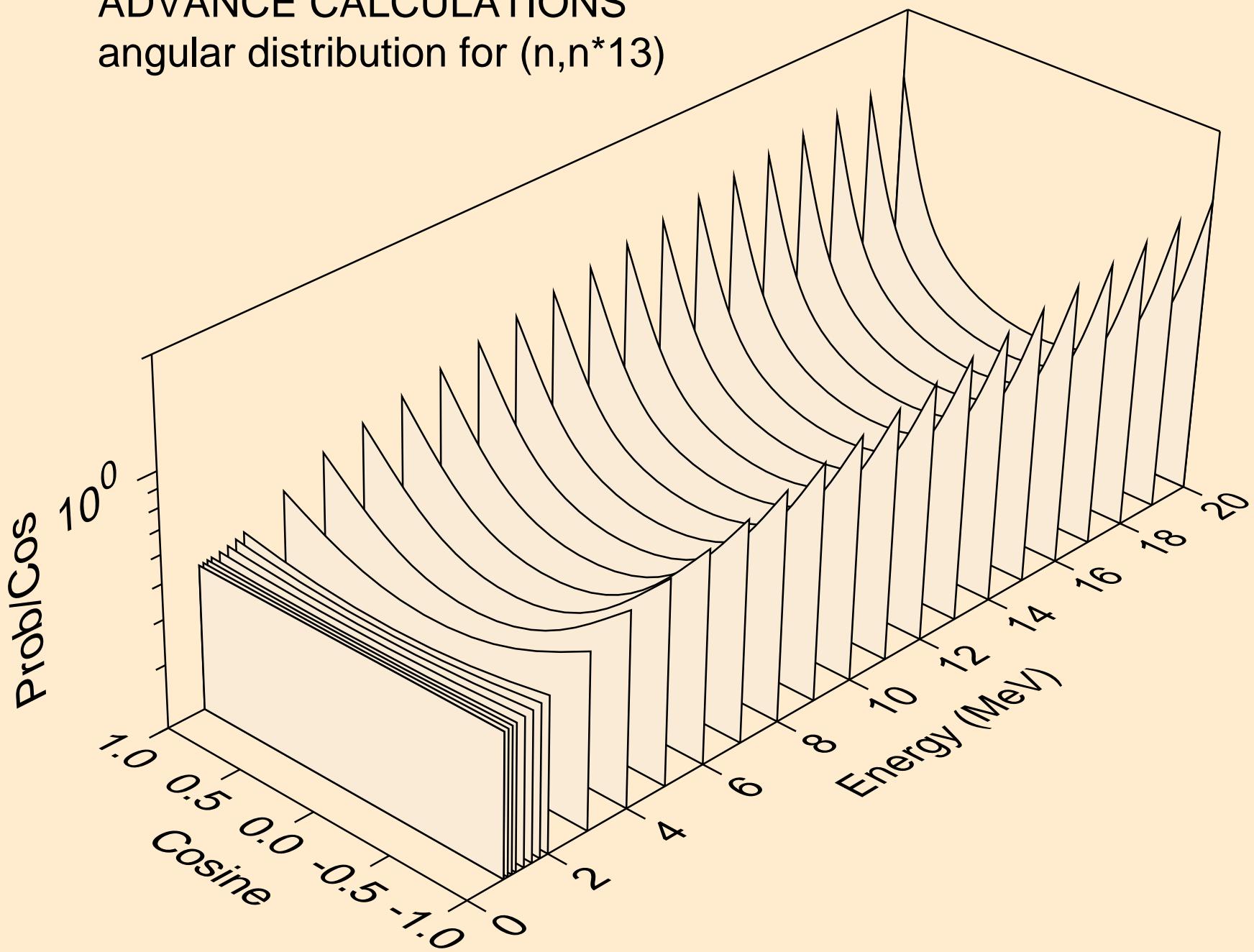
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*12)$



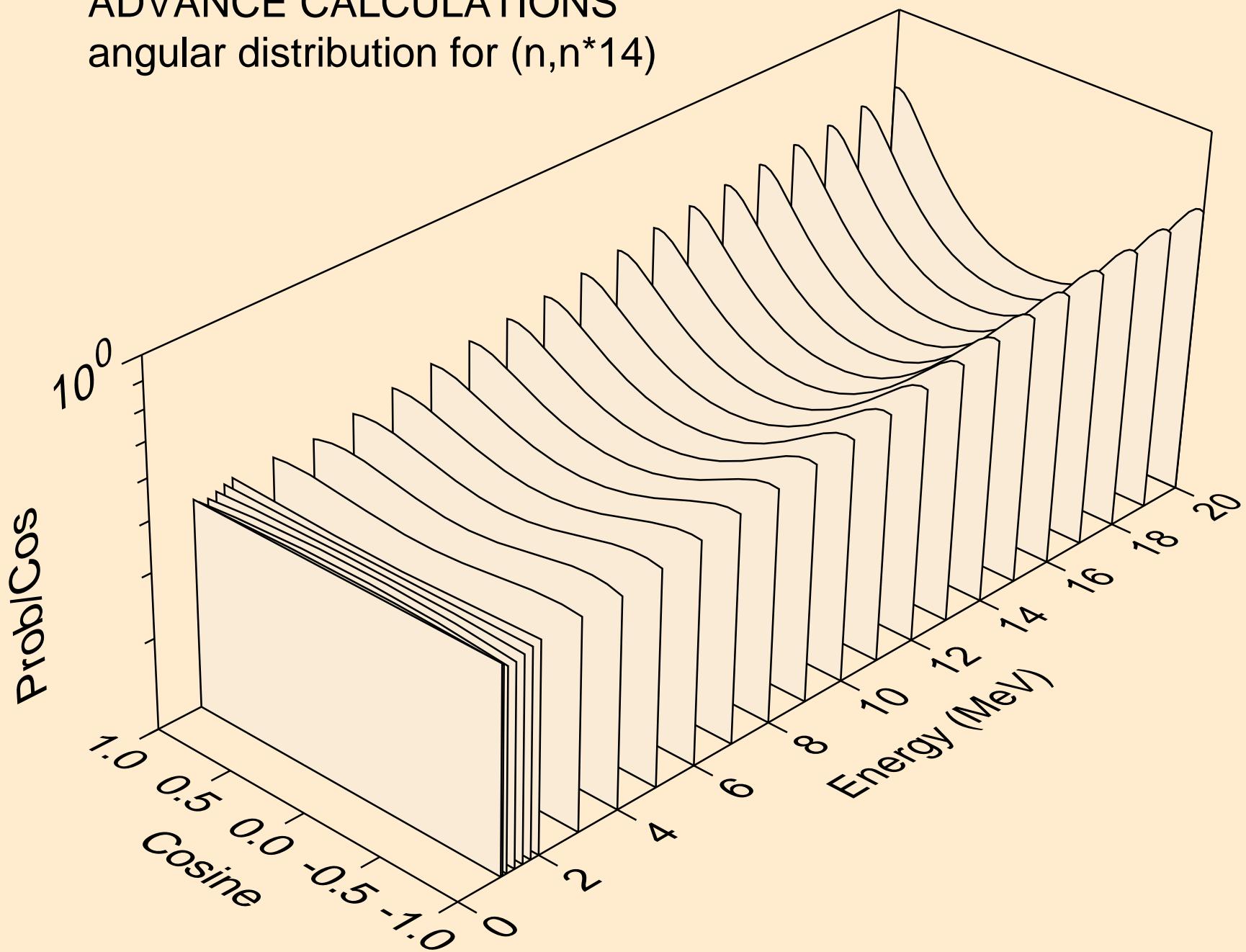
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*13)$



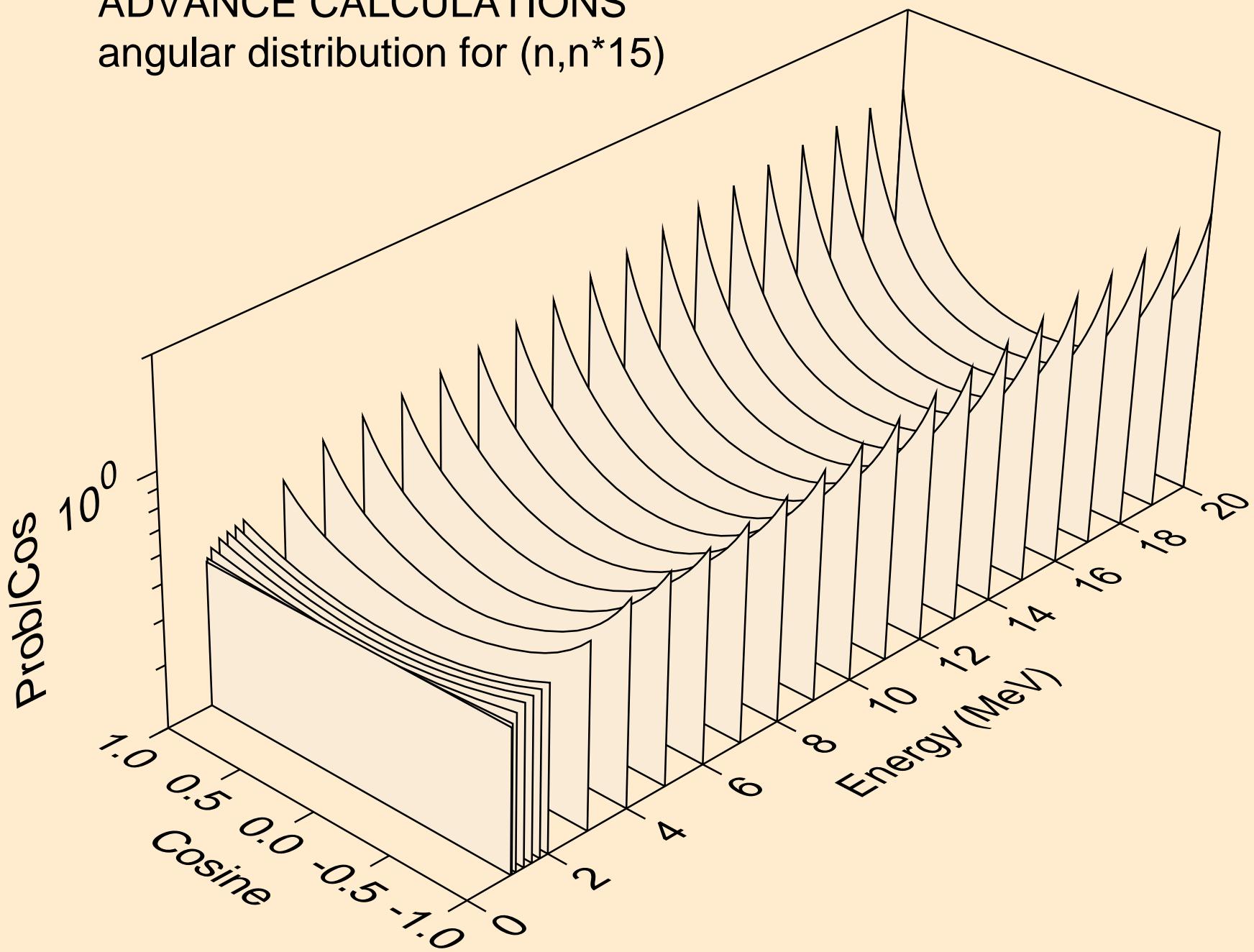
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*14)$



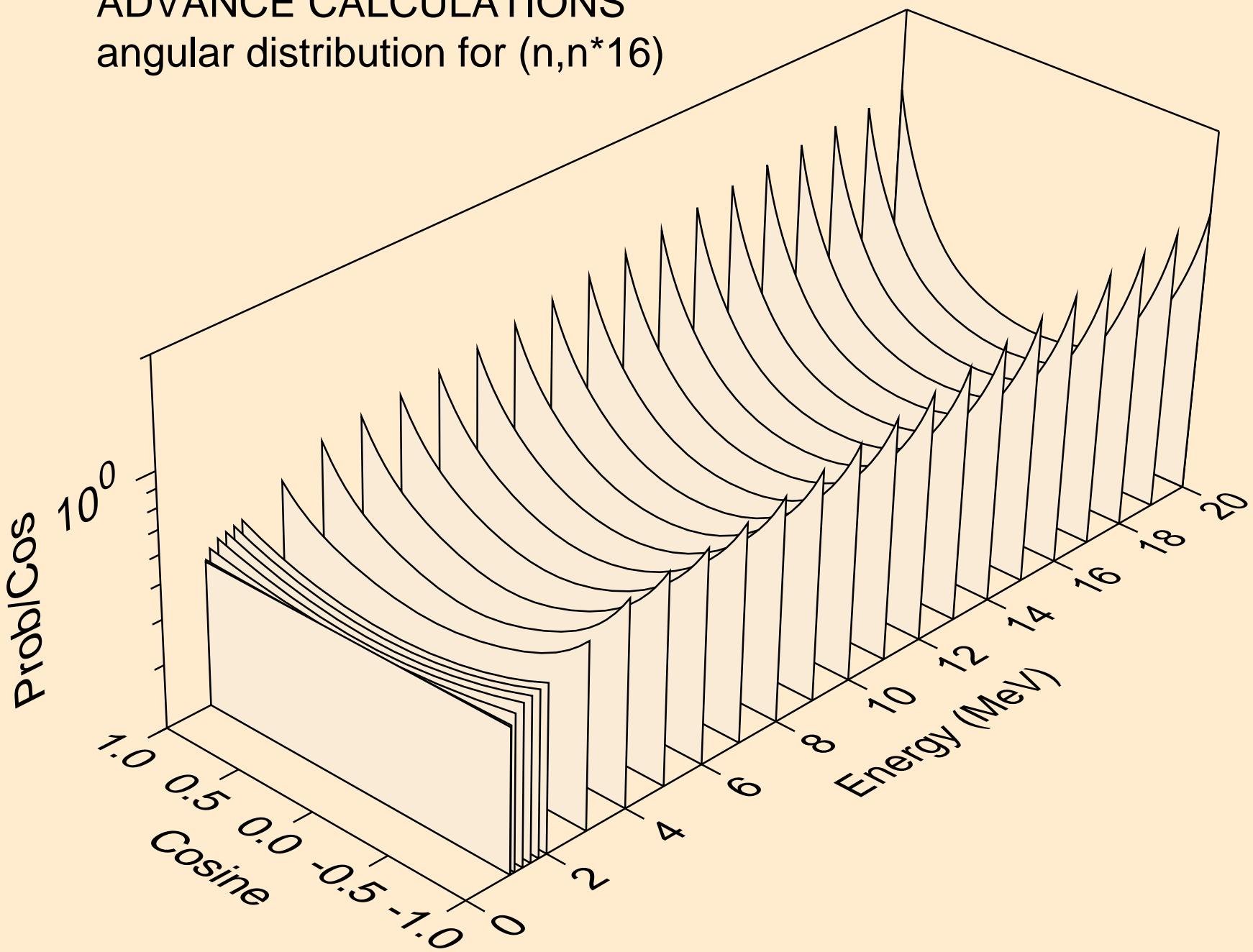
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*15)$



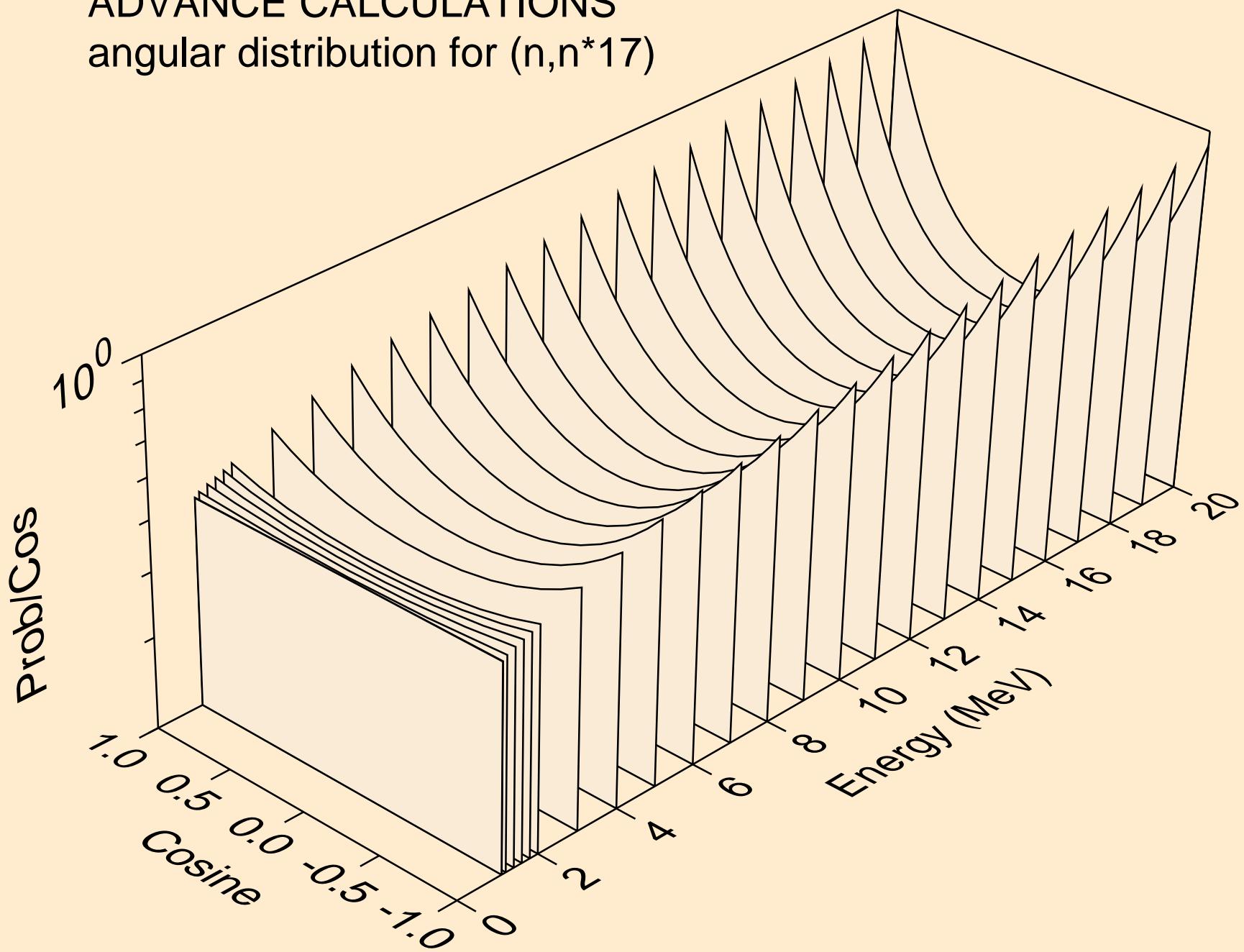
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*16)$



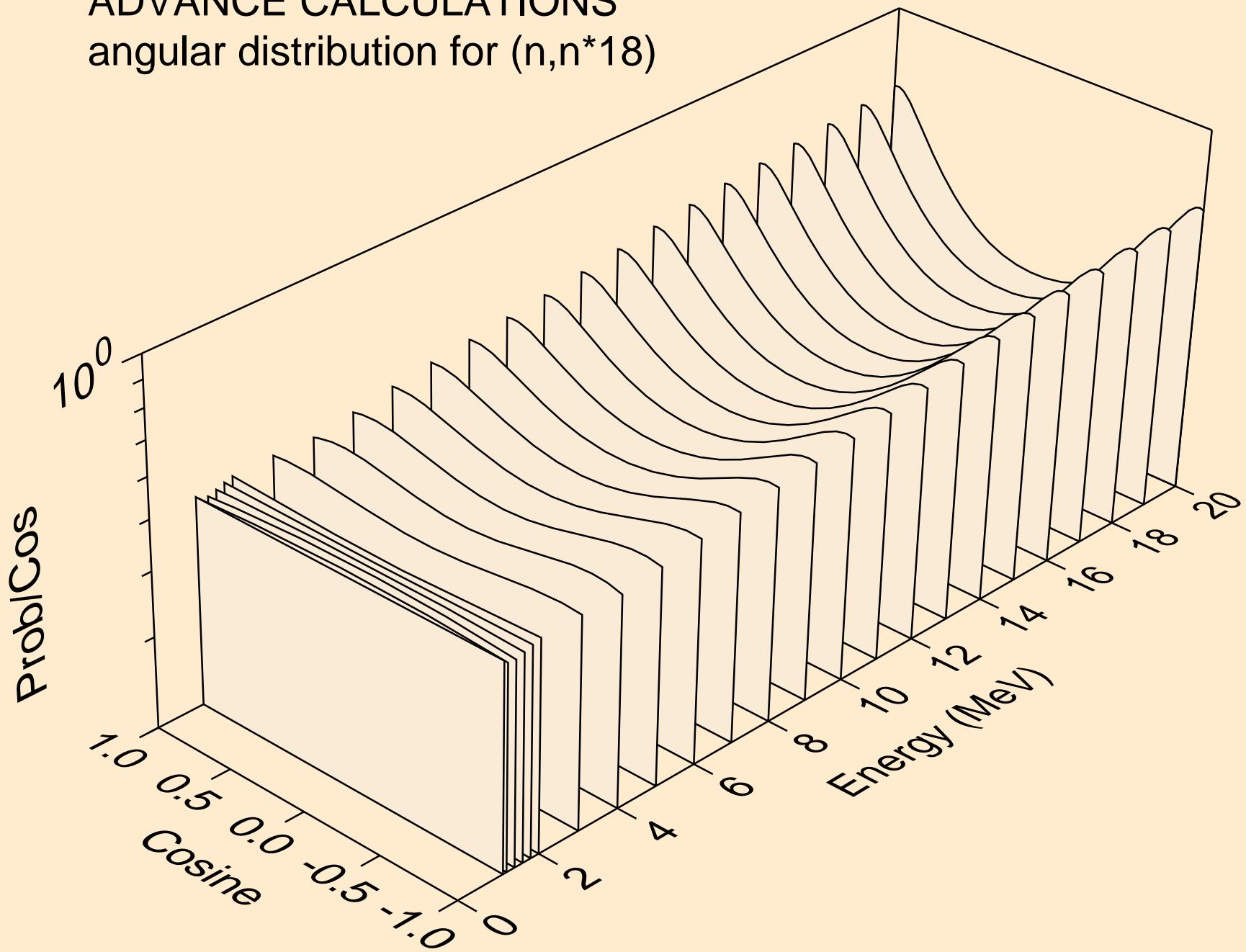
# ADVANCE CALCULATIONS

## angular distribution for $(n,n^*17)$



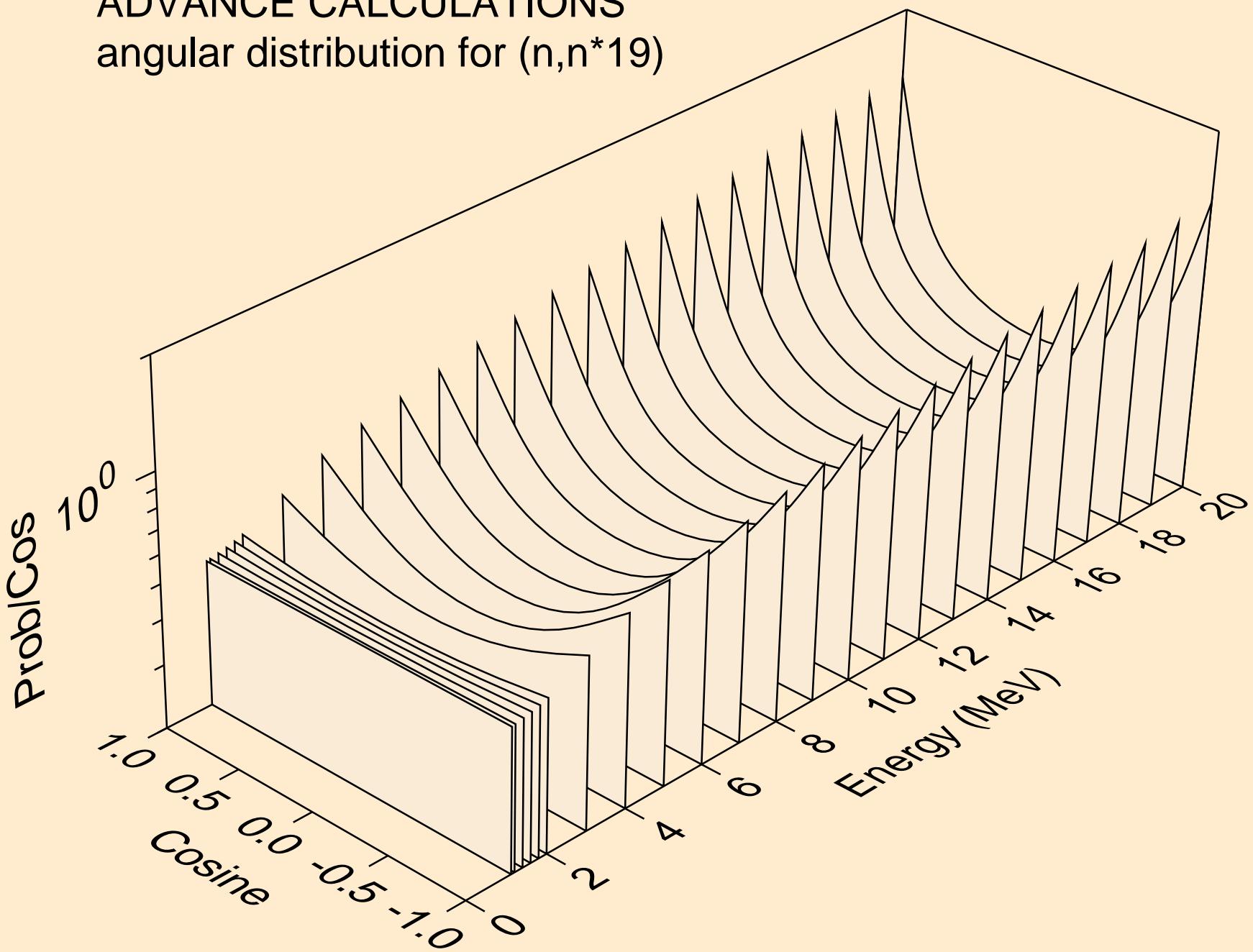
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^{*}18)$



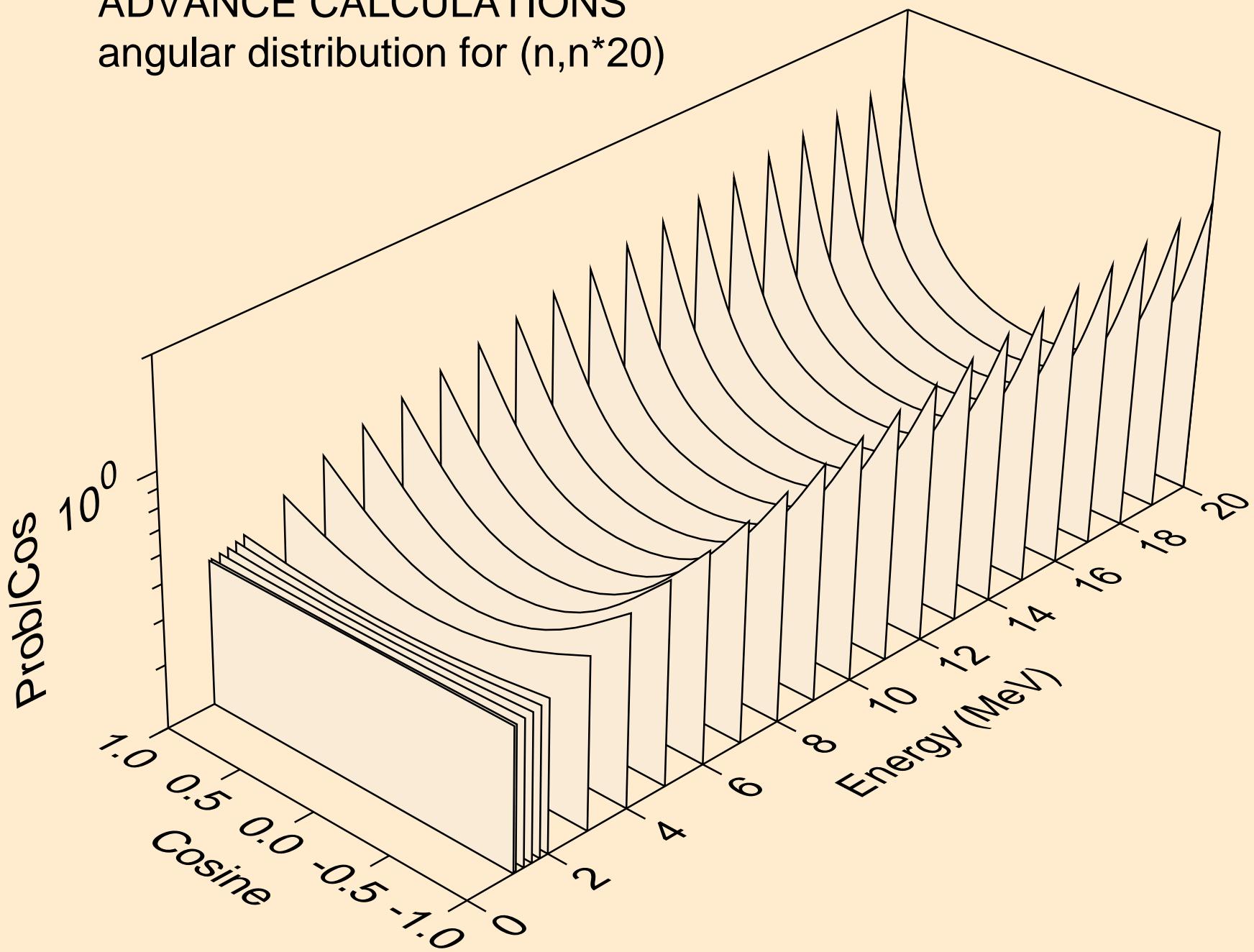
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*19)



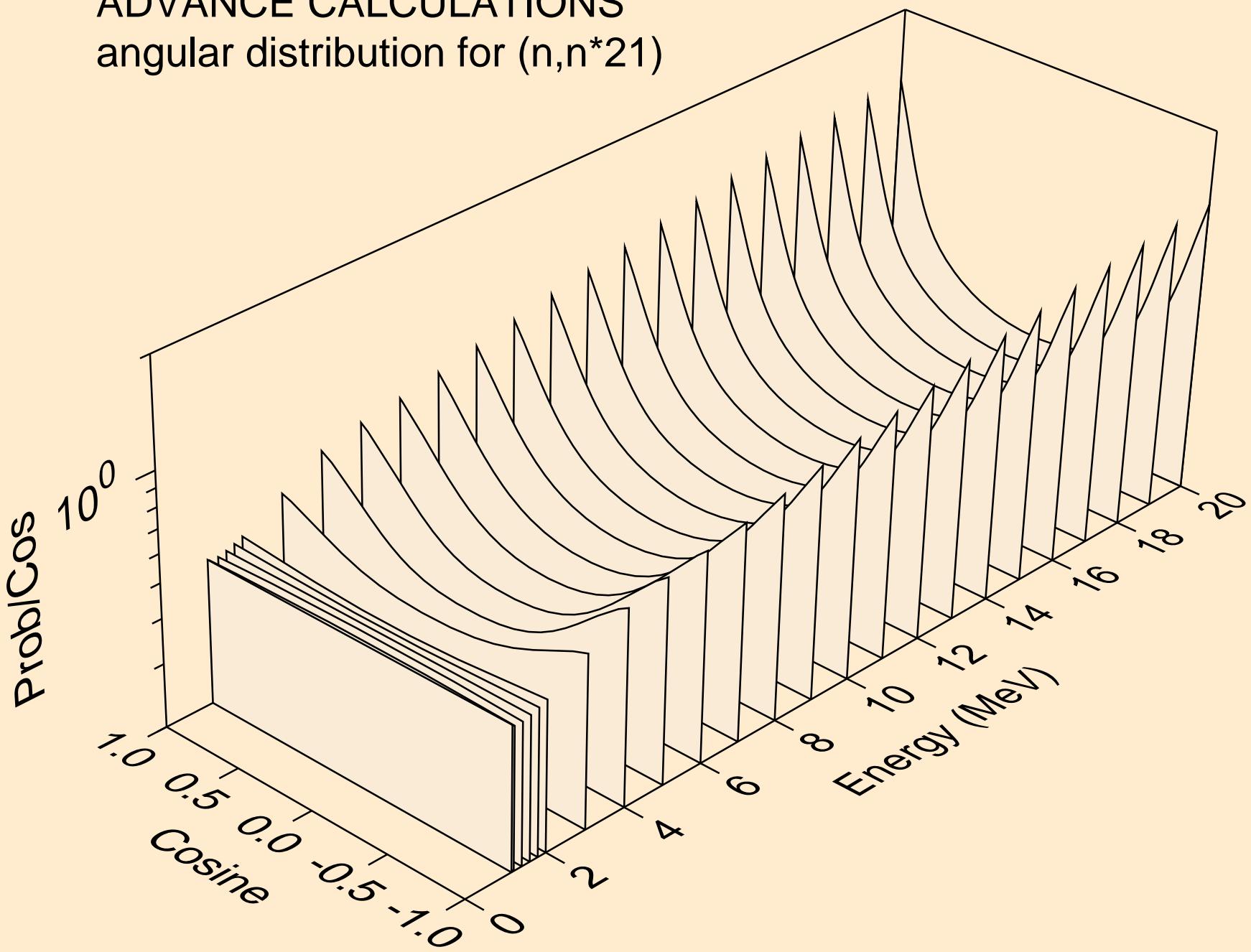
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*)20$



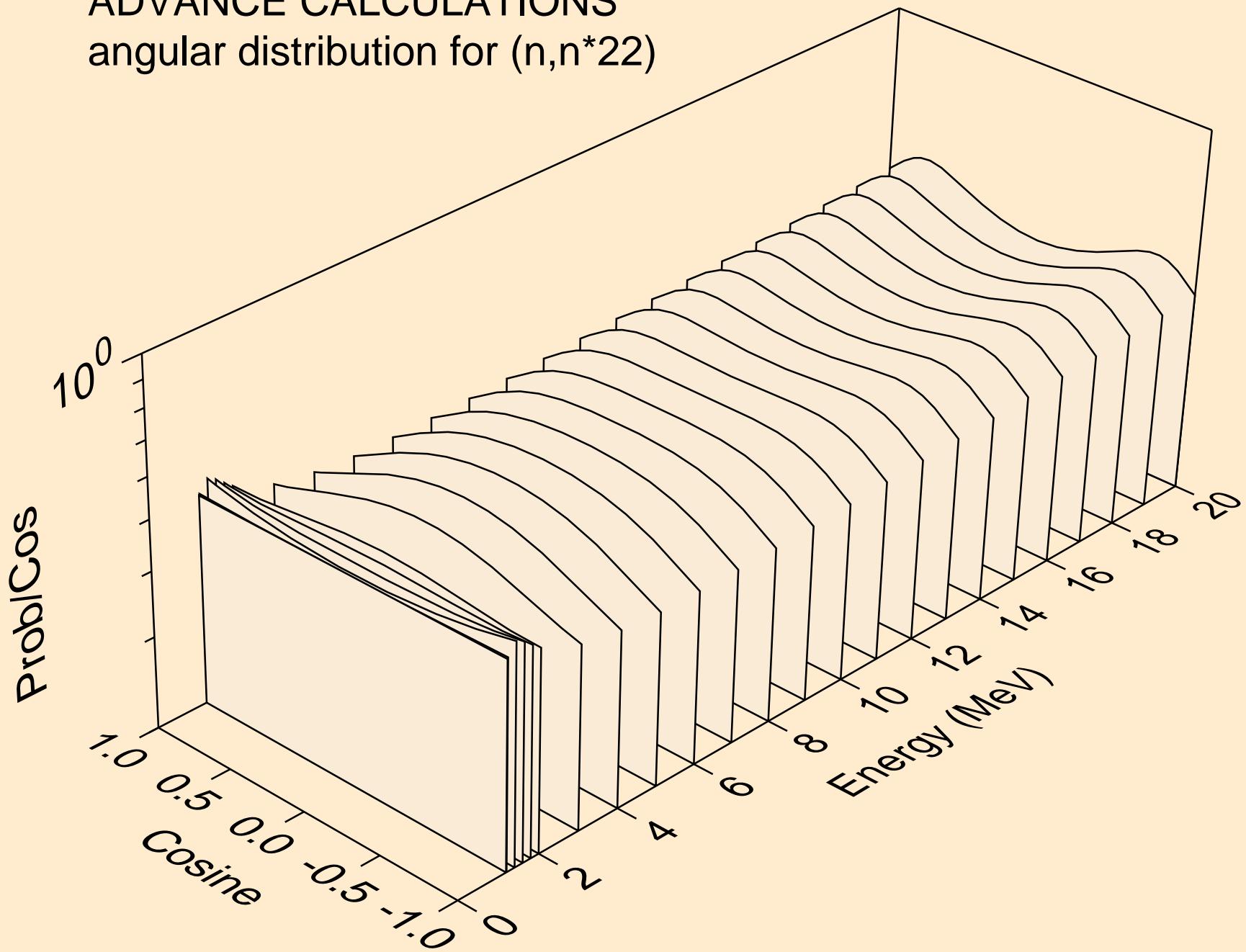
# ADVANCE CALCULATIONS

## angular distribution for $(n,n^*21)$



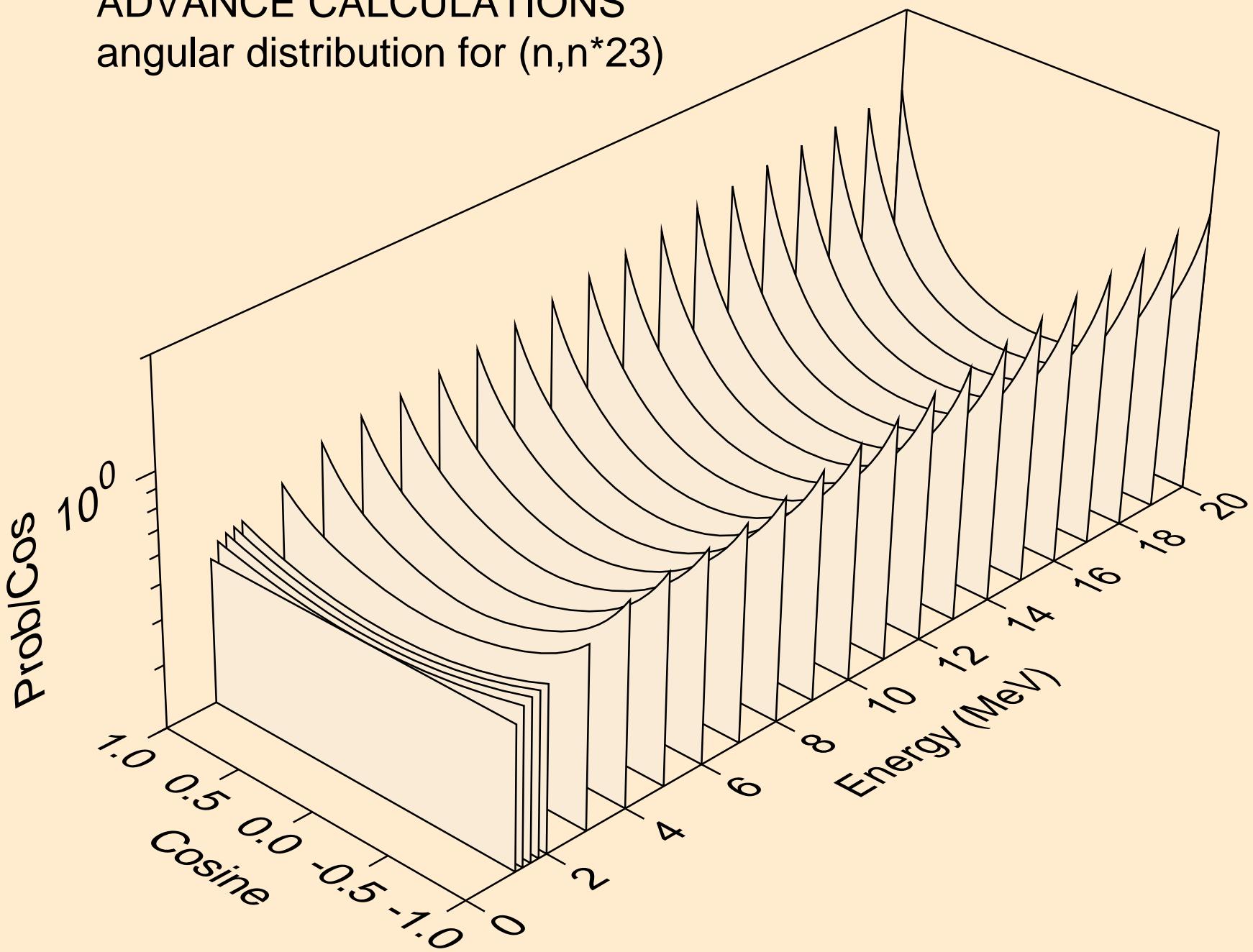
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*)^{22}$



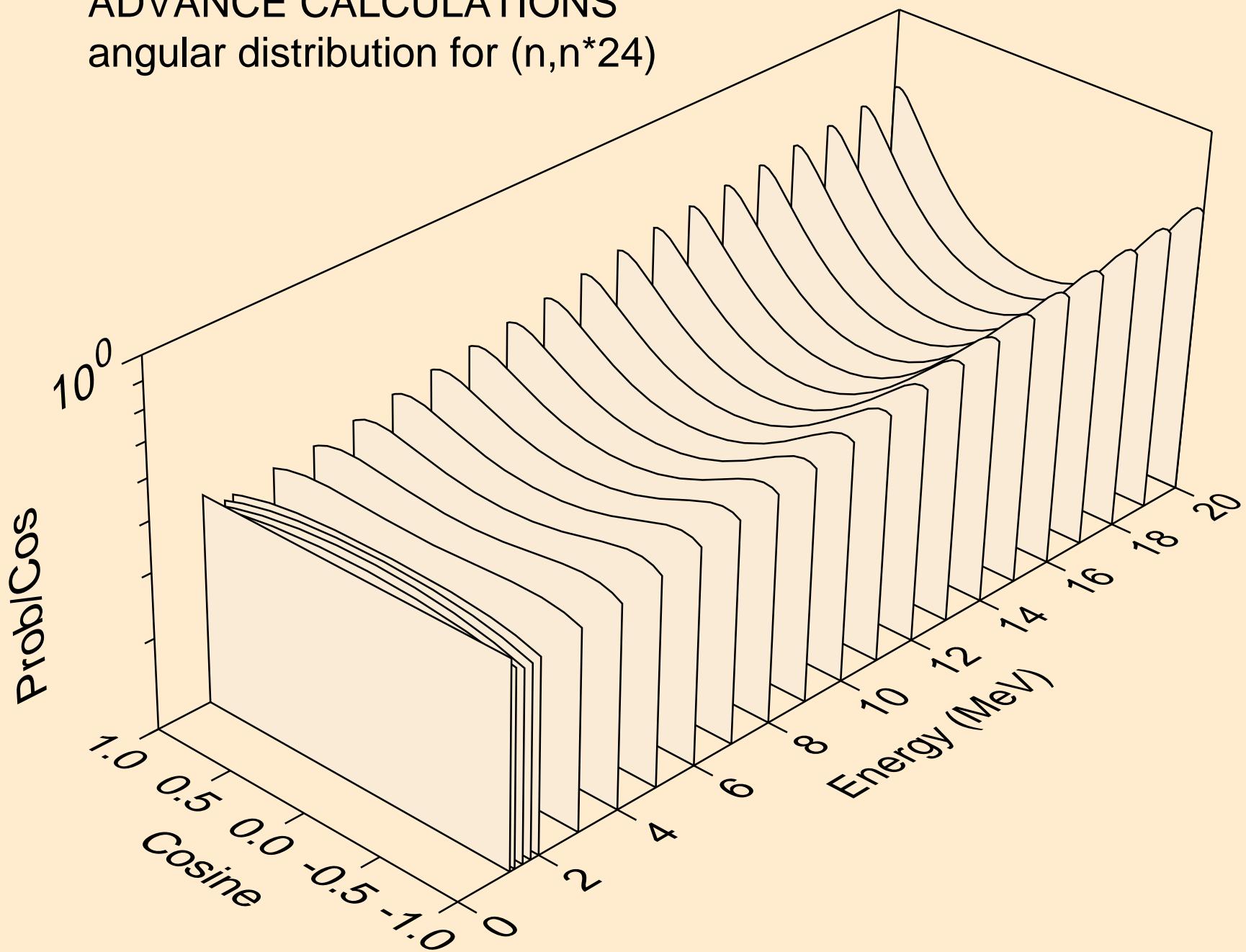
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*23)$



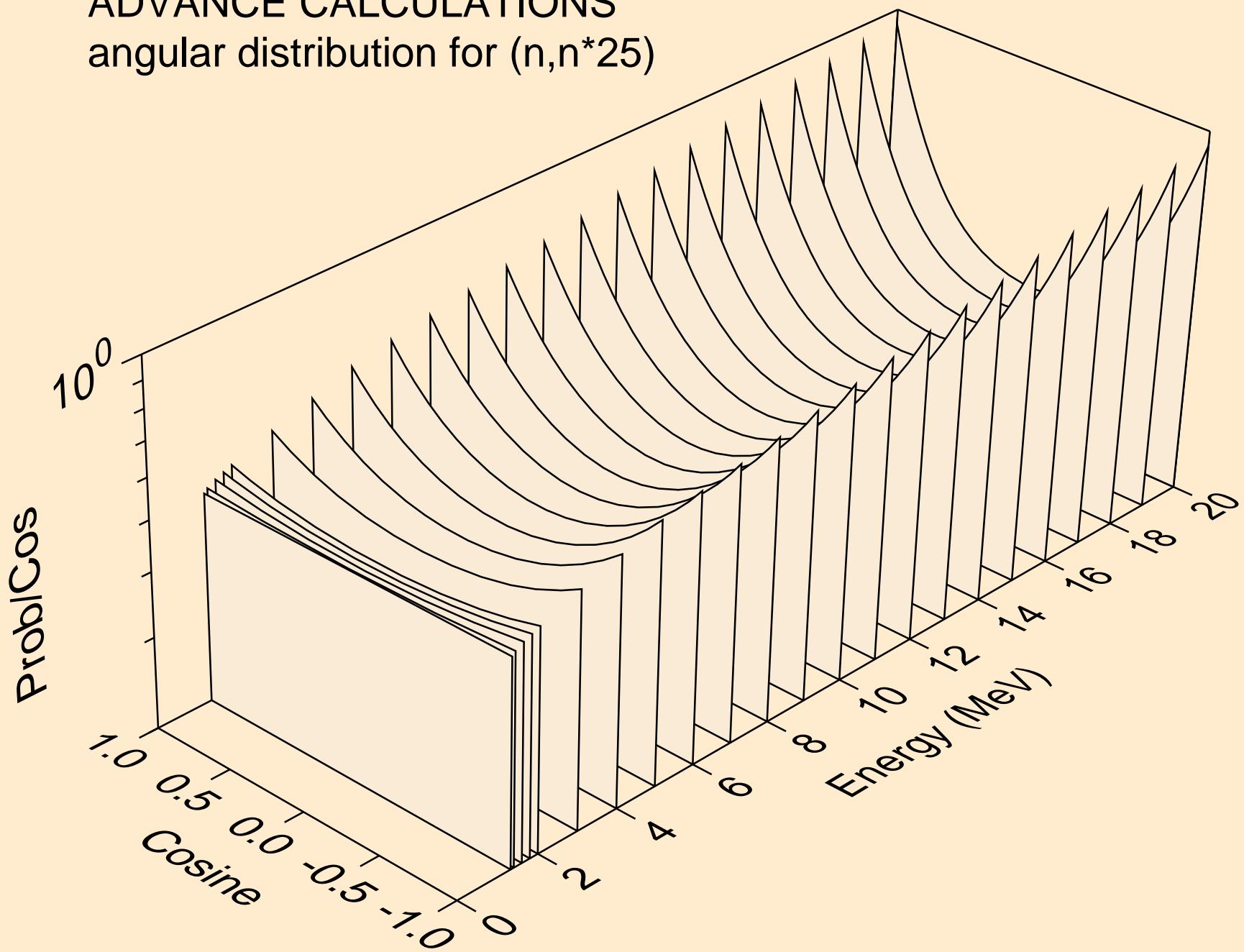
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*24)$



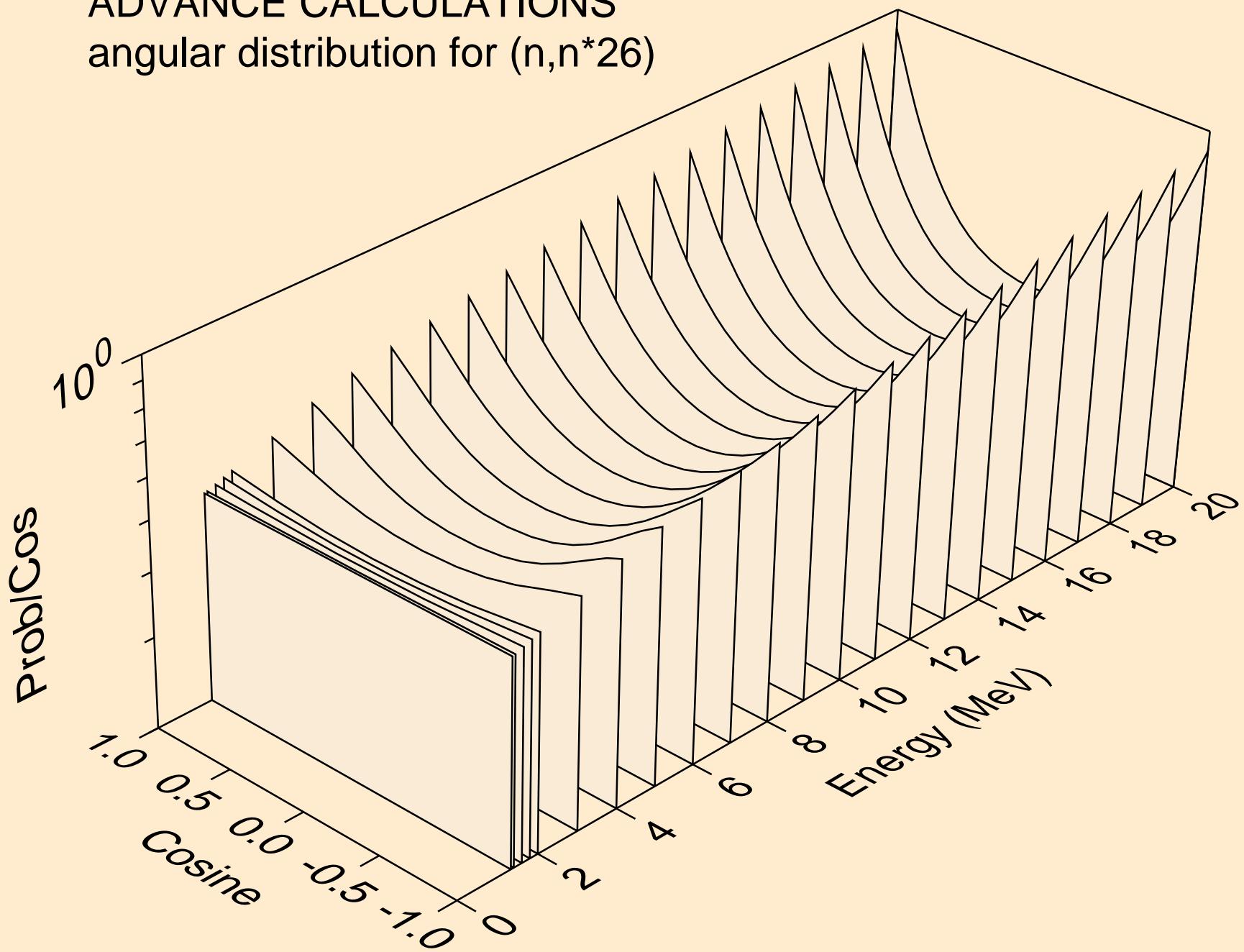
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*)^{25}$



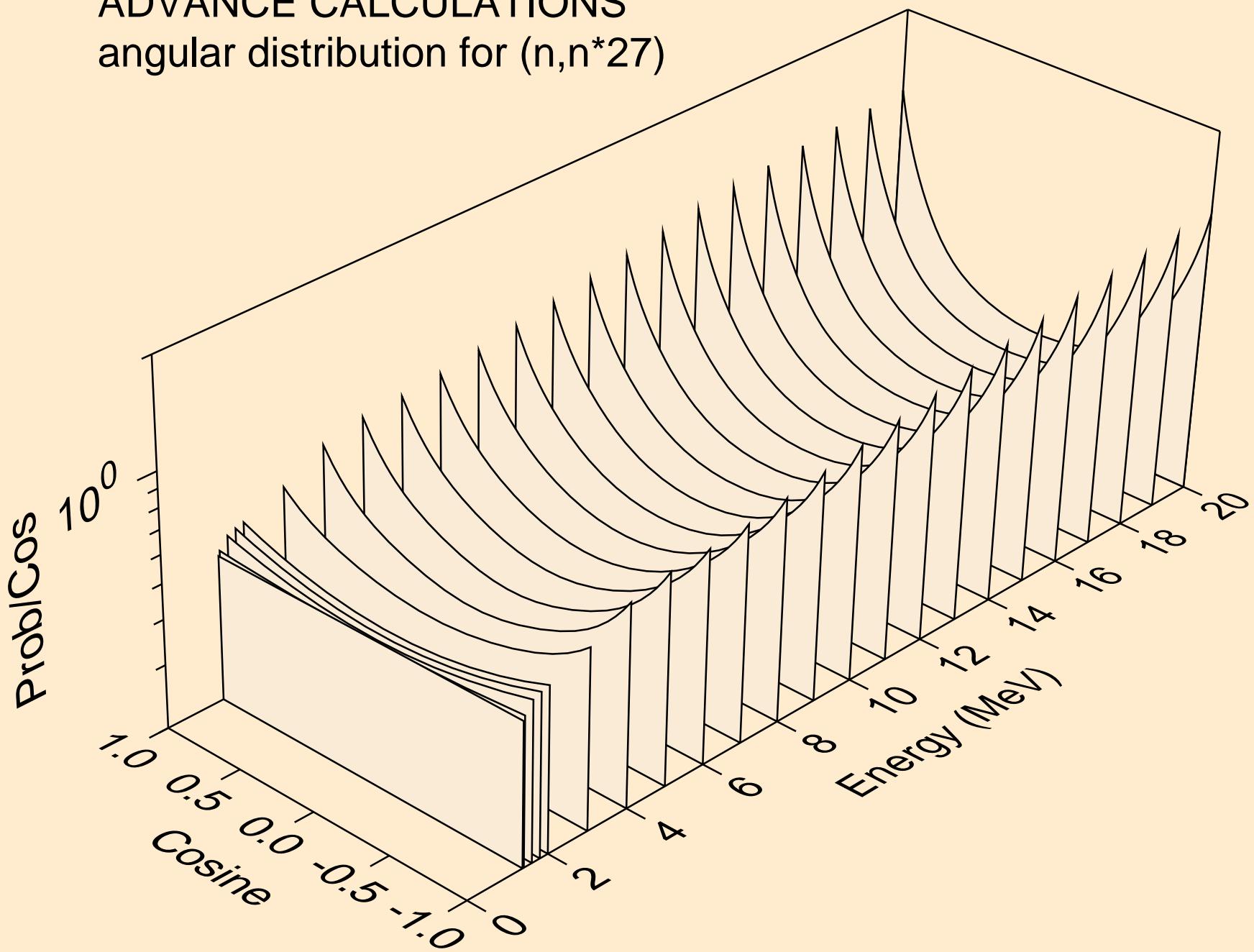
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*26)$



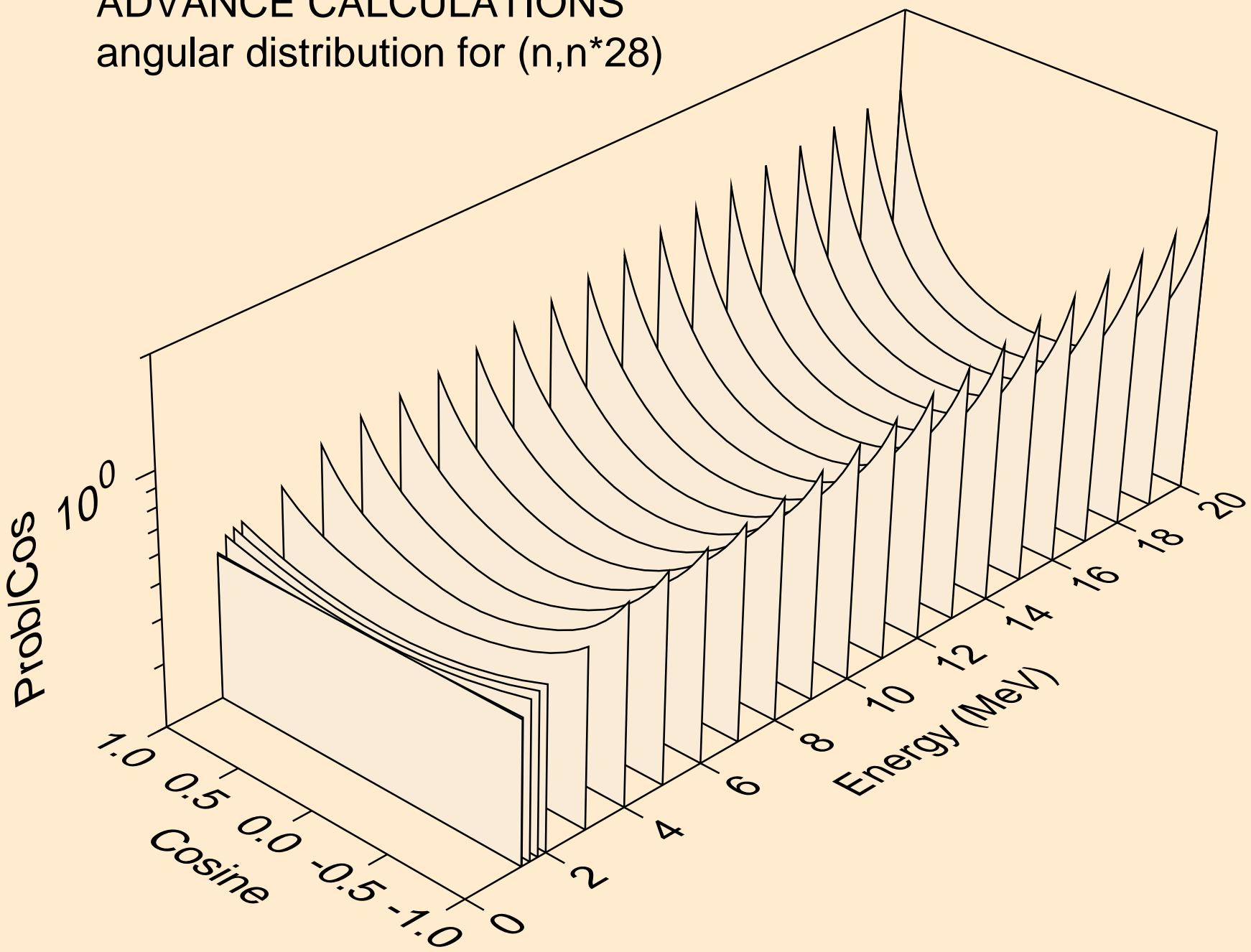
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*27)$



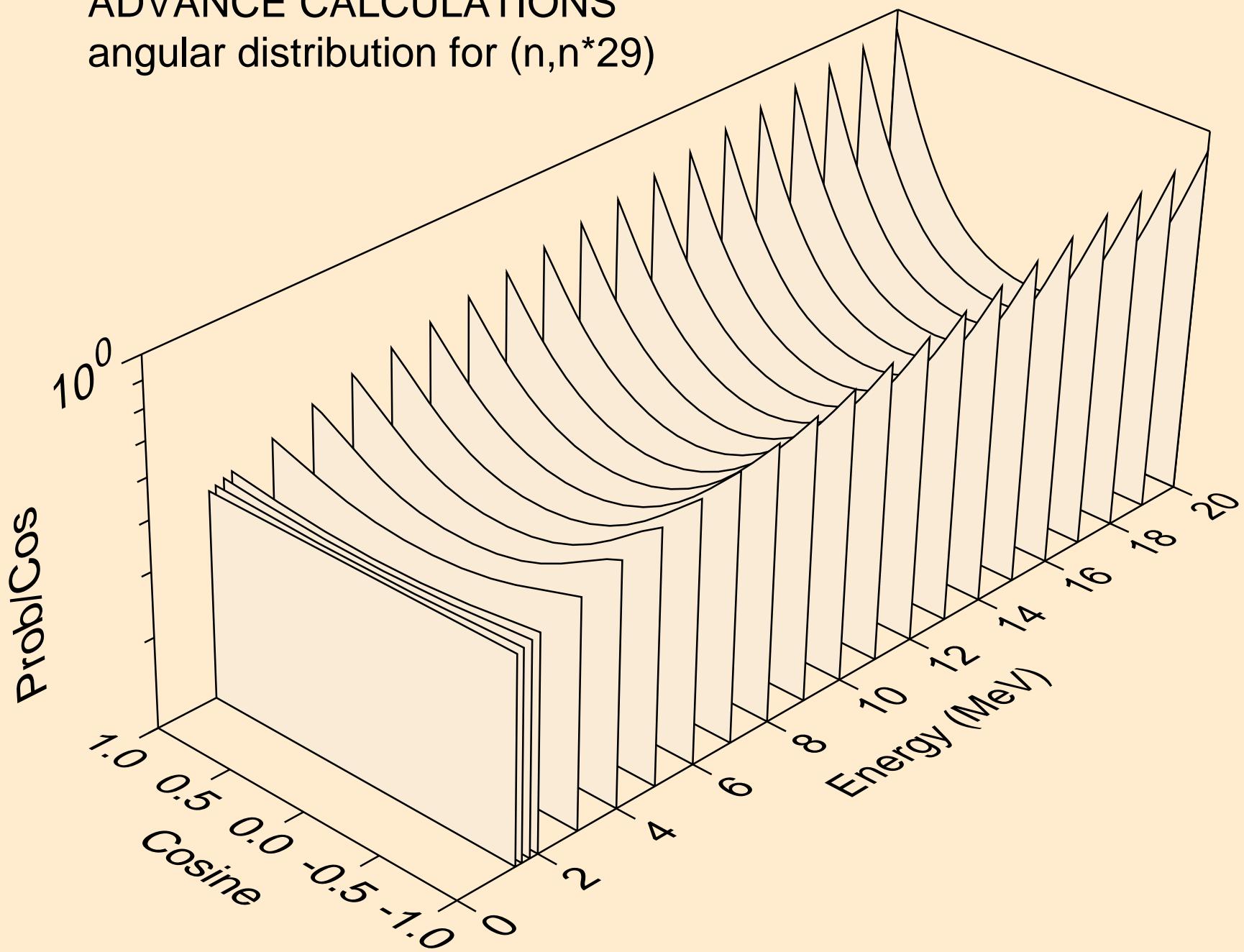
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*28)$



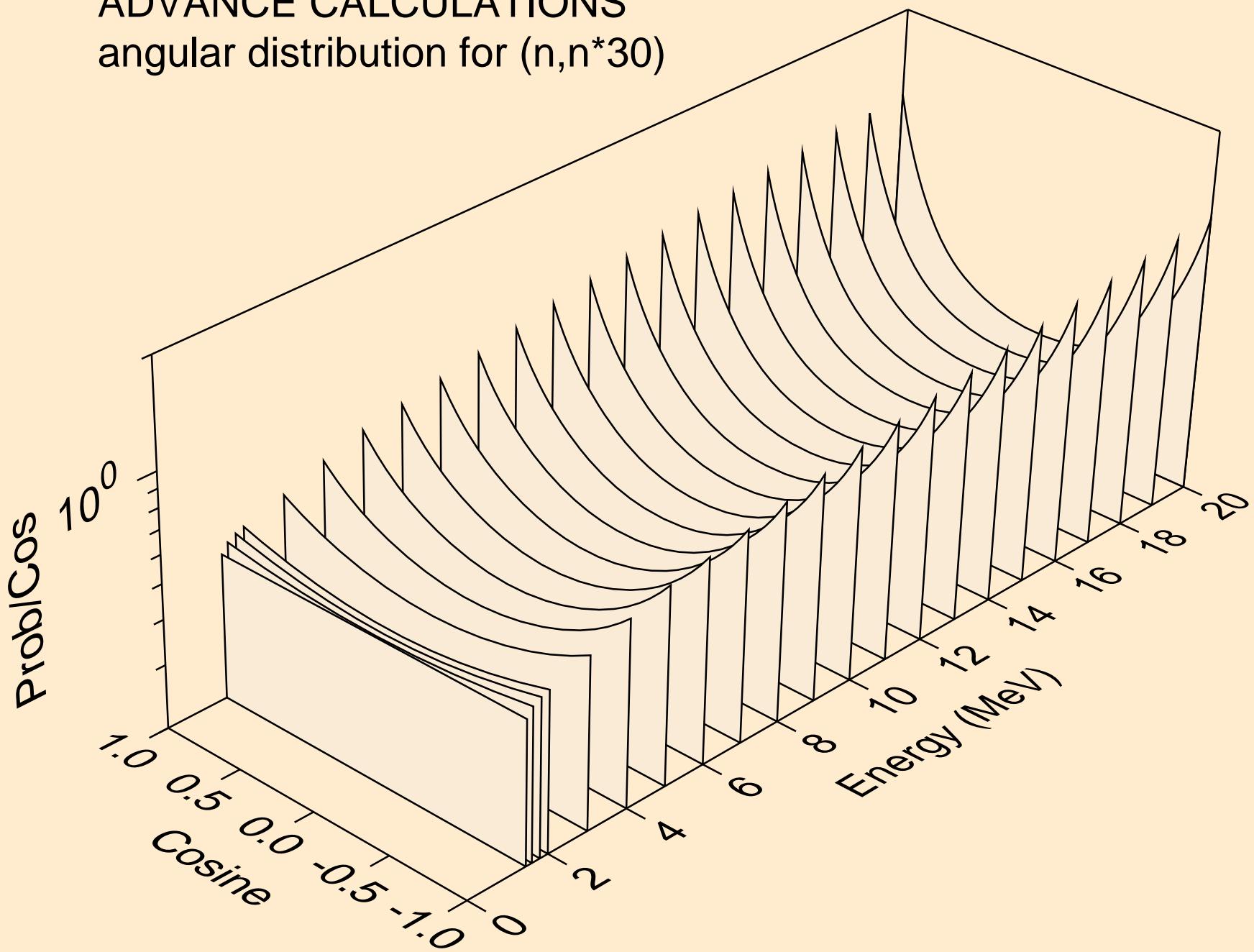
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*29)



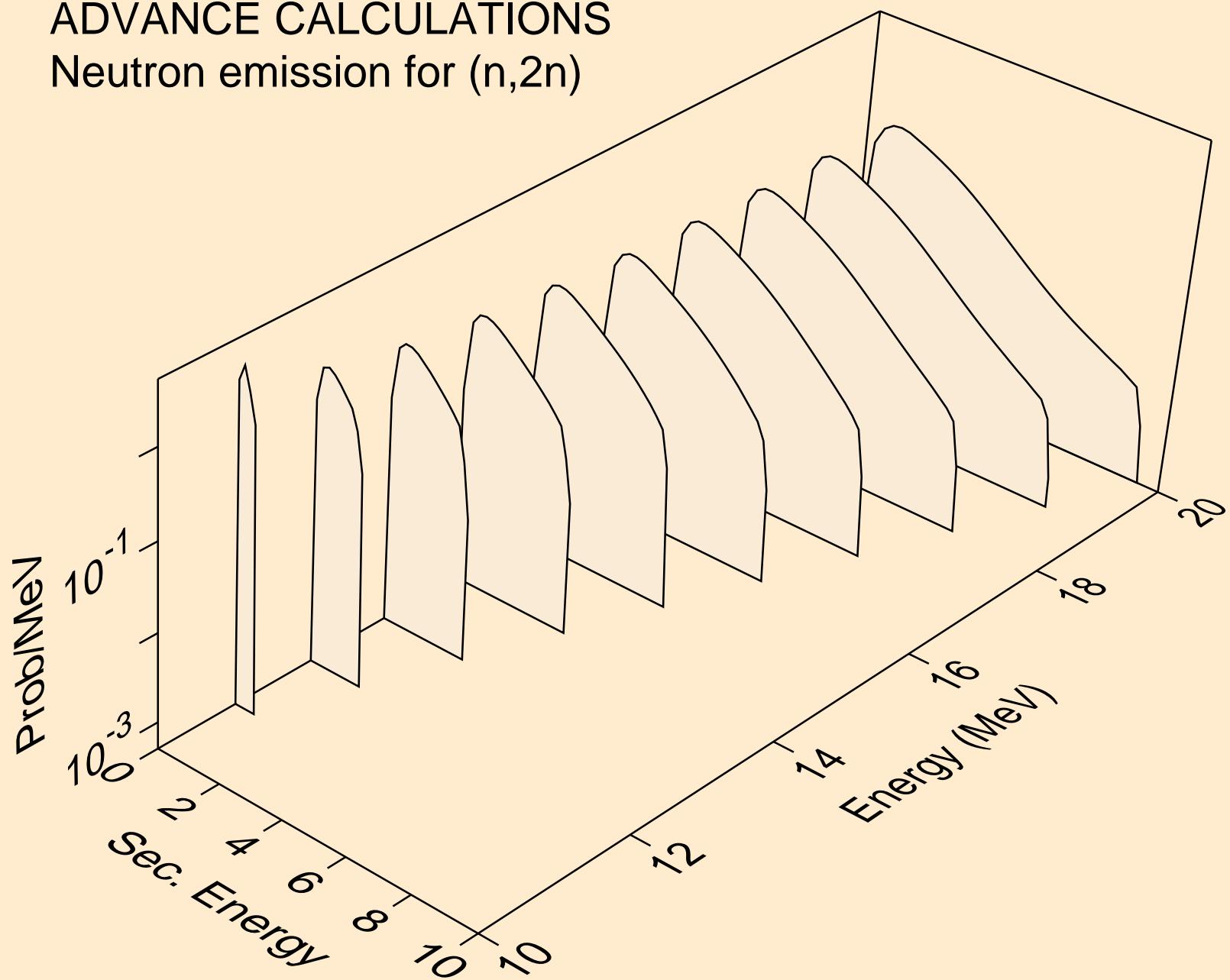
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*30)$



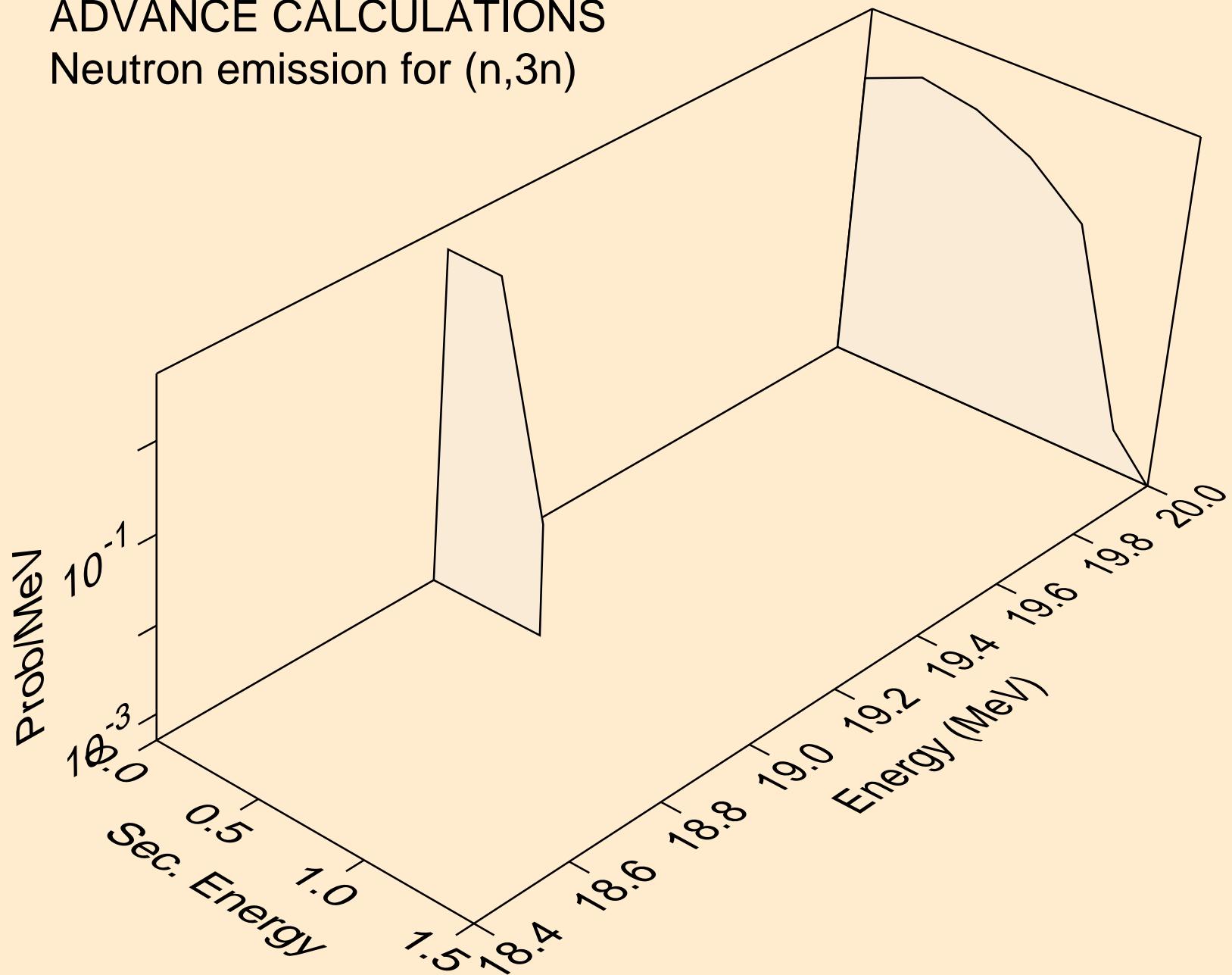
## ADVANCE CALCULATIONS

### Neutron emission for (n,2n)



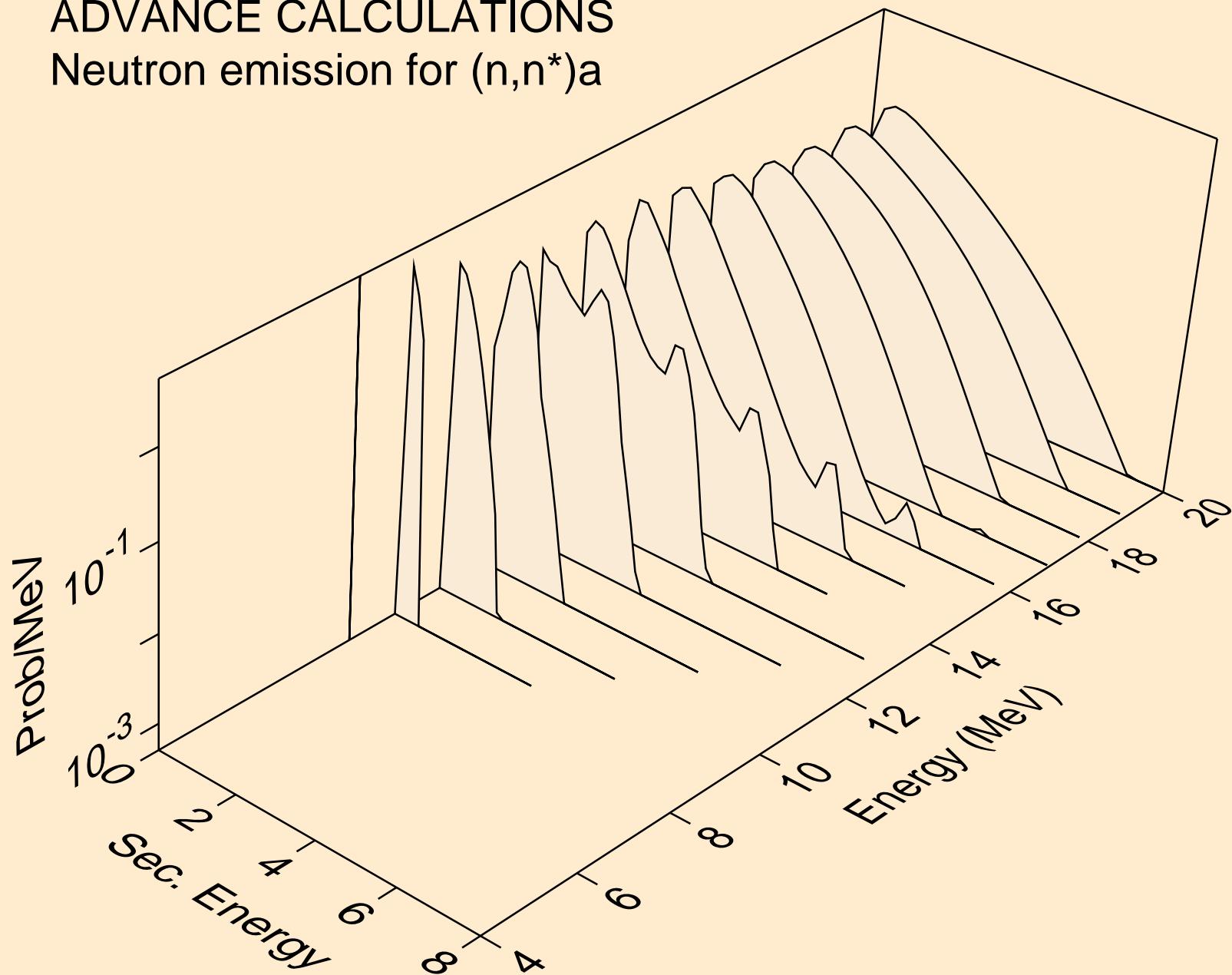
# ADVANCE CALCULATIONS

## Neutron emission for (n,3n)



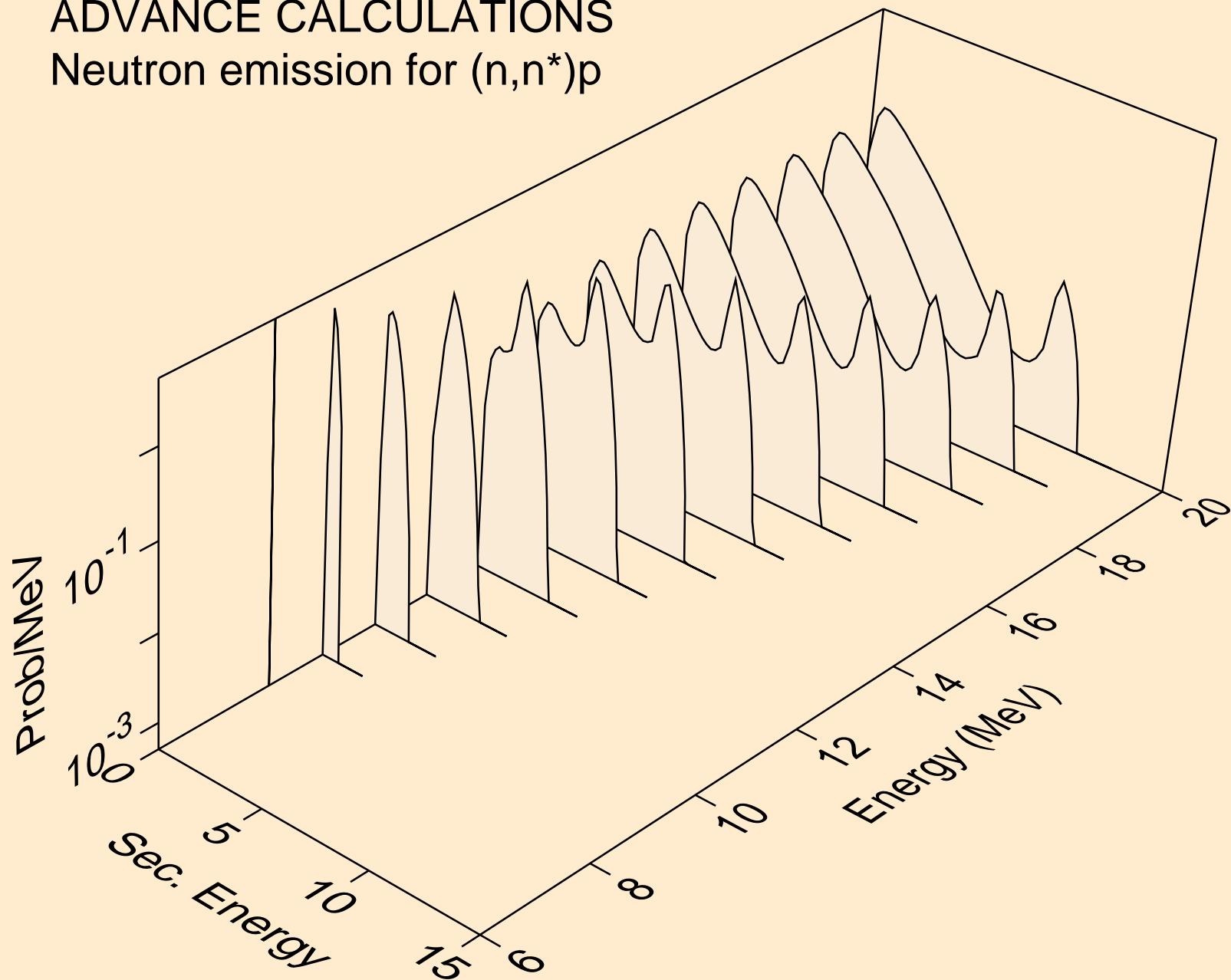
# ADVANCE CALCULATIONS

## Neutron emission for $(n,n^*)a$



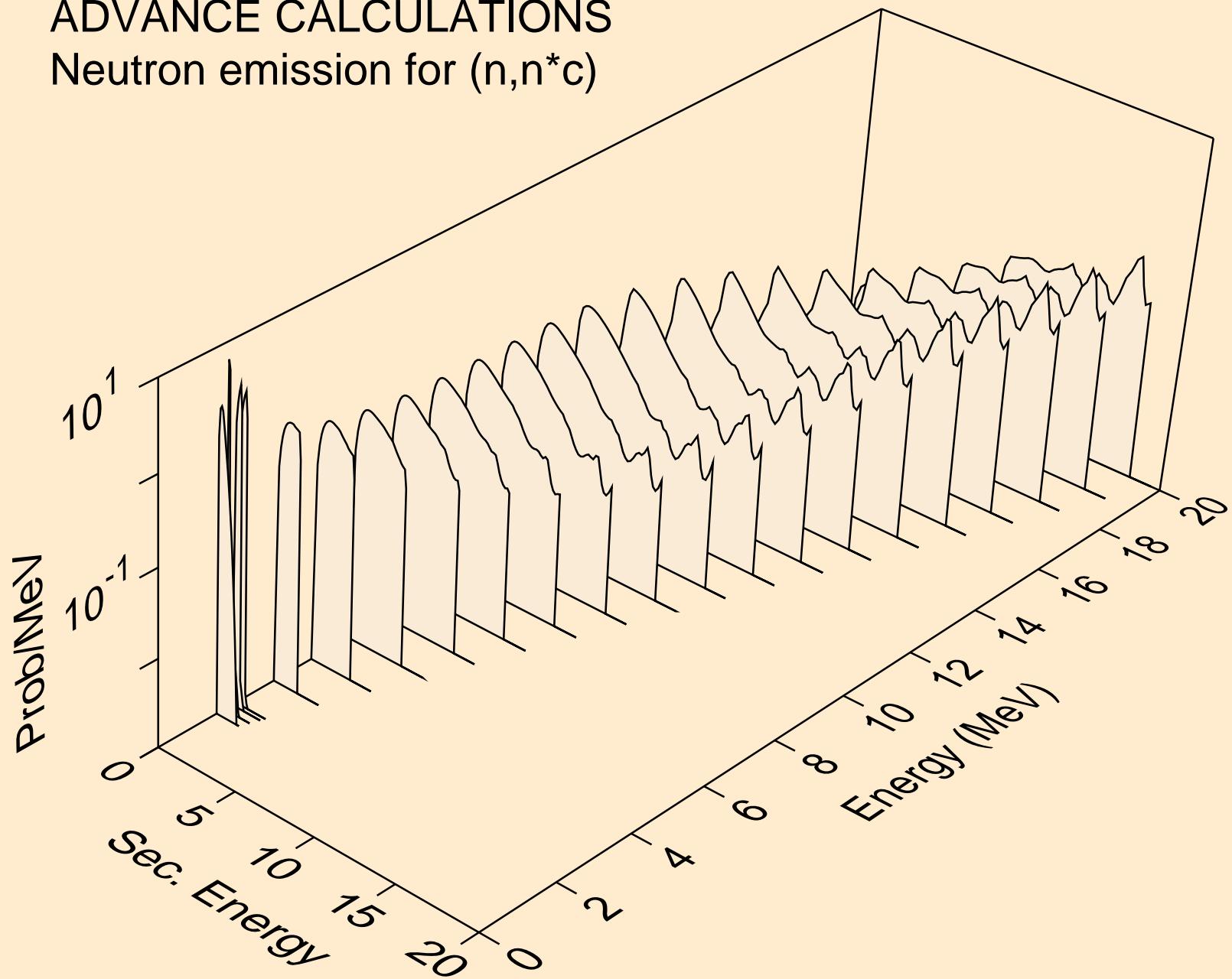
# ADVANCE CALCULATIONS

## Neutron emission for $(n,n^*)p$



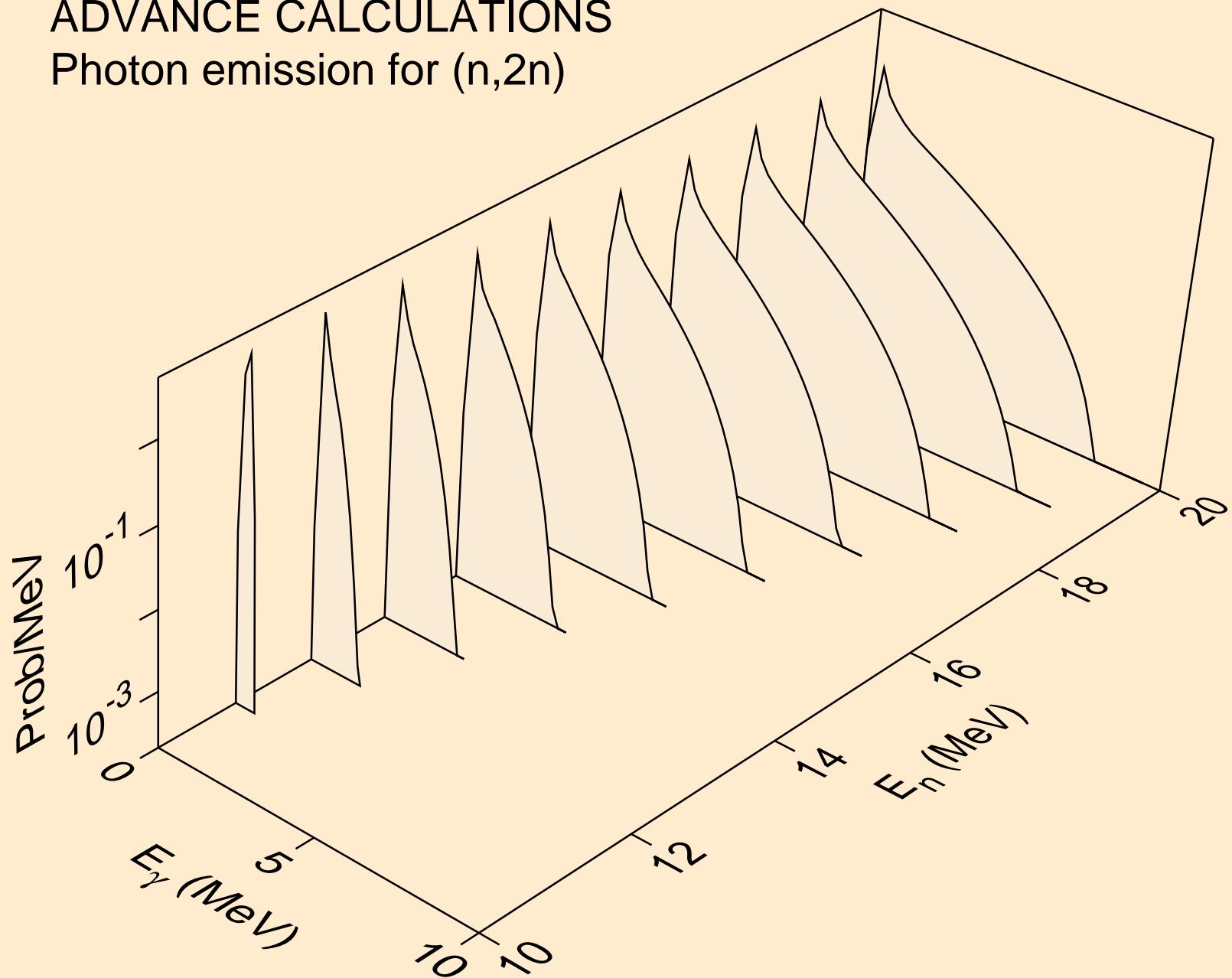
# ADVANCE CALCULATIONS

## Neutron emission for $(n,n^*c)$



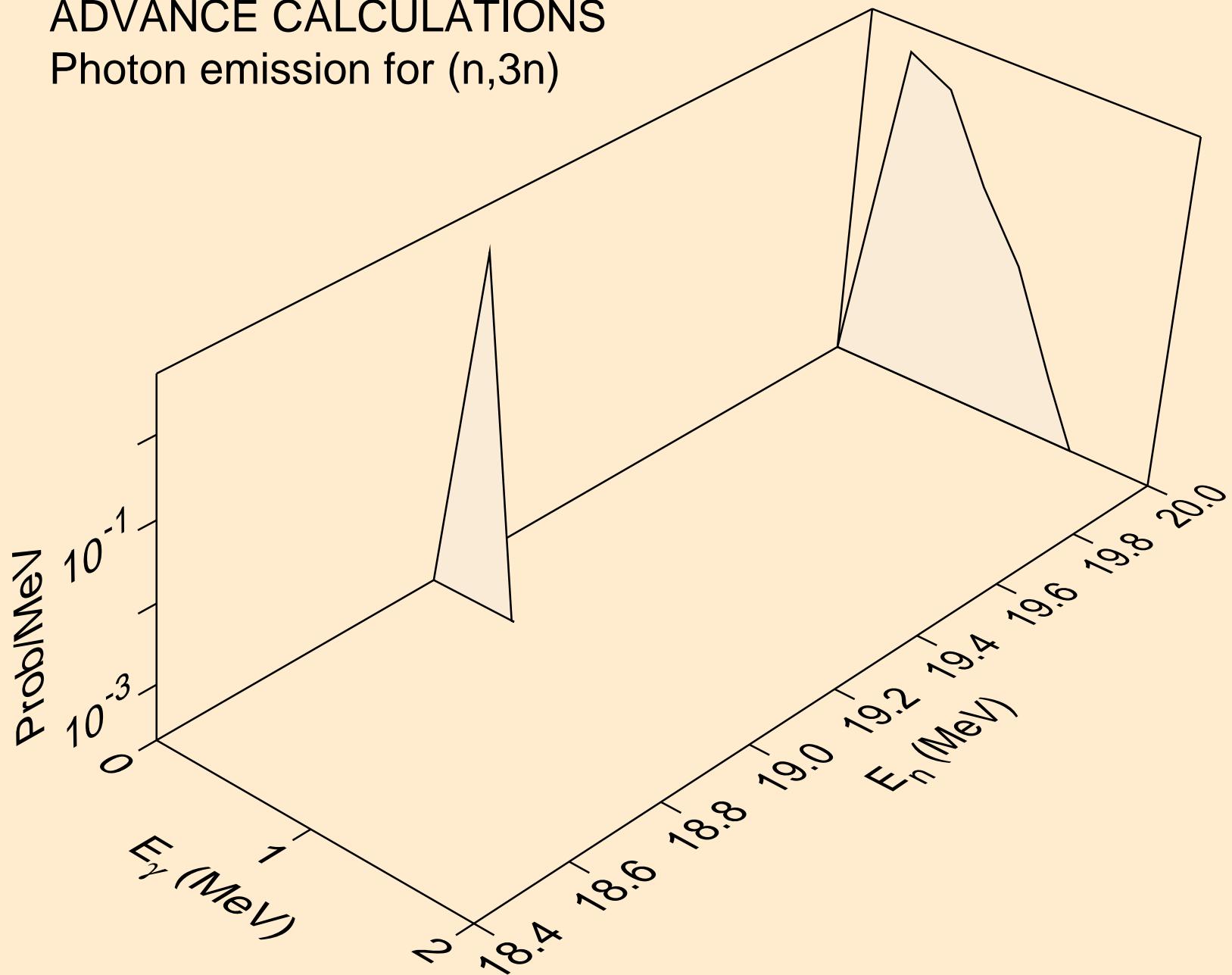
# ADVANCE CALCULATIONS

## Photon emission for (n,2n)



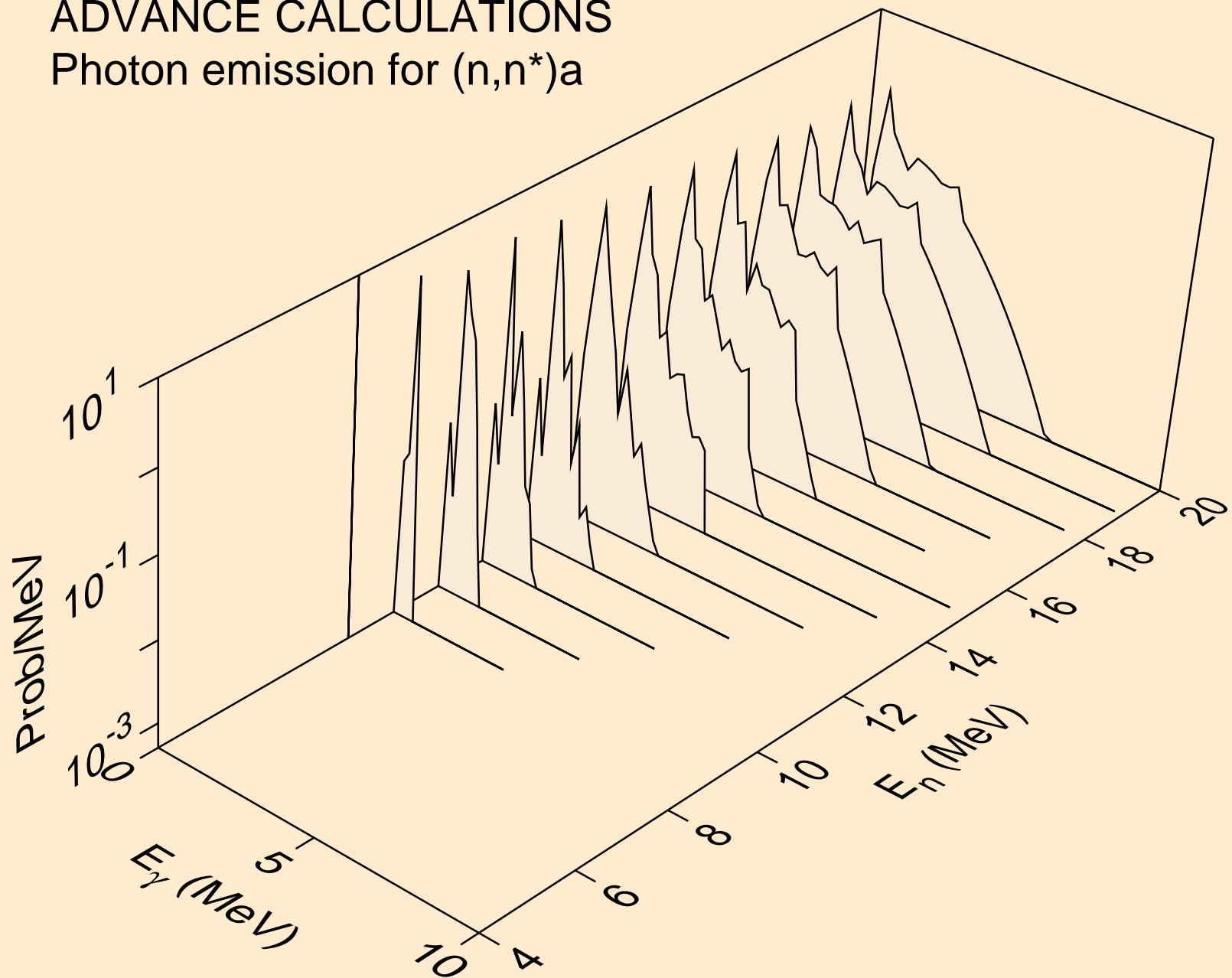
# ADVANCE CALCULATIONS

## Photon emission for (n,3n)



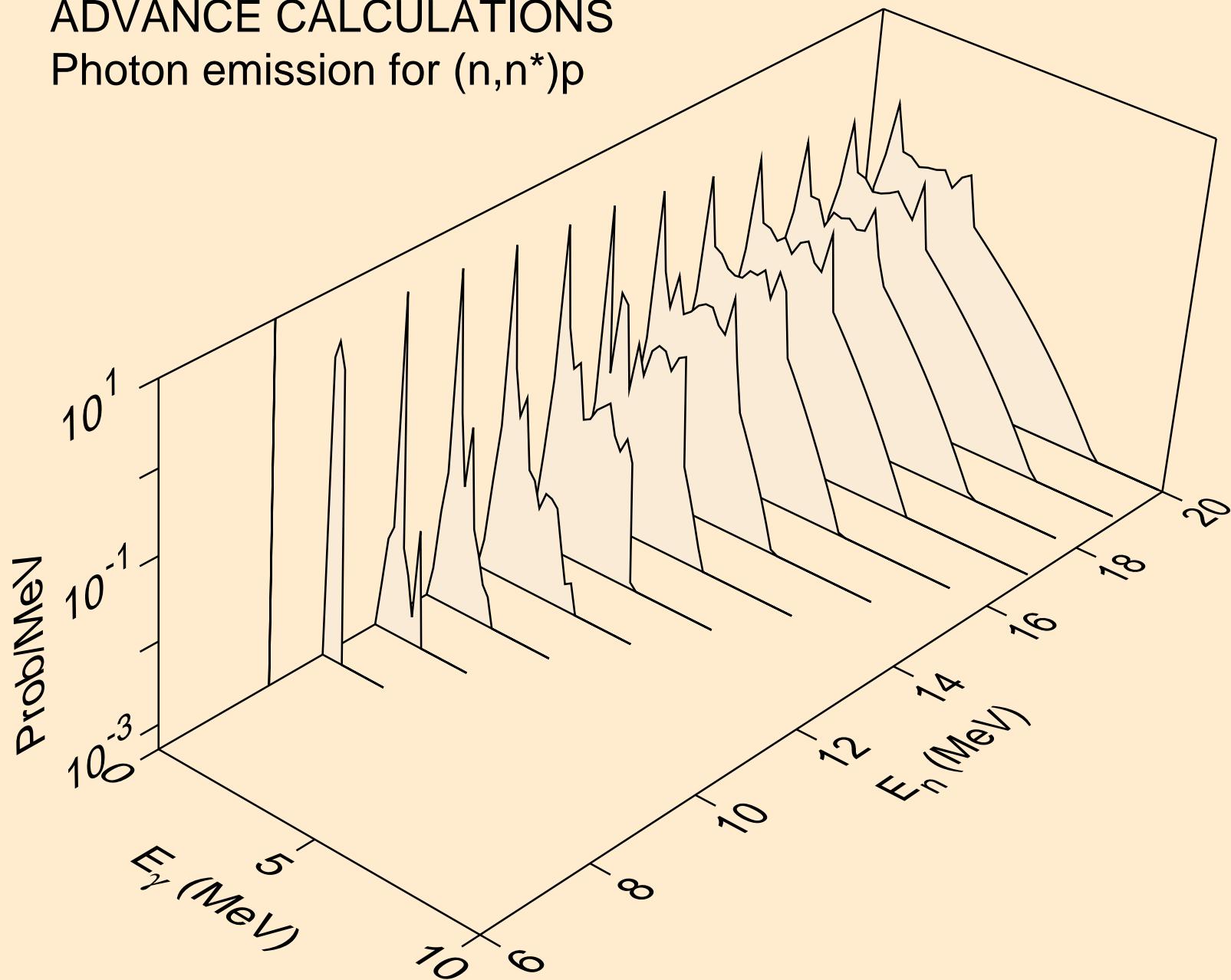
# ADVANCE CALCULATIONS

## Photon emission for $(n,n^*)a$



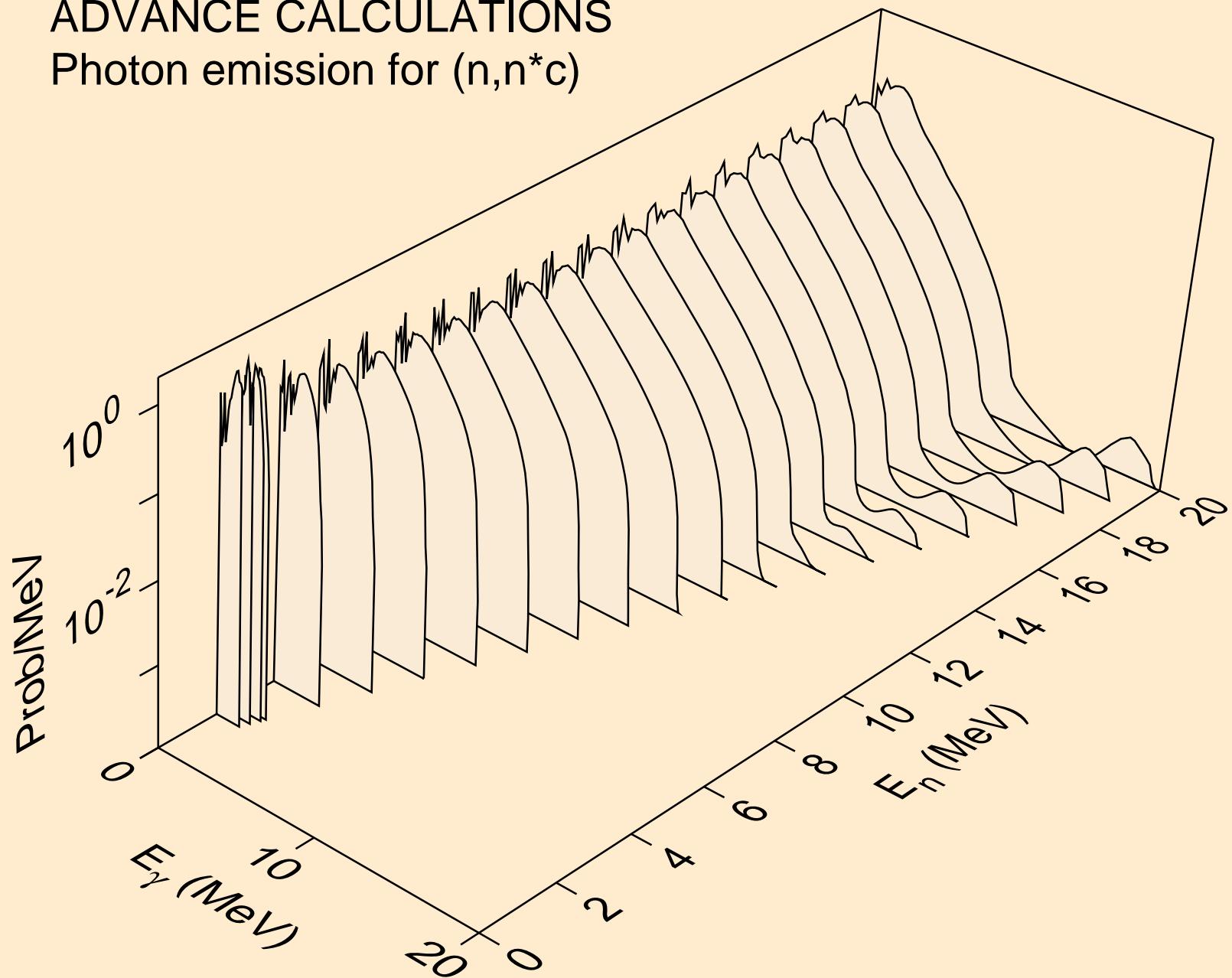
# ADVANCE CALCULATIONS

## Photon emission for $(n,n^*)p$



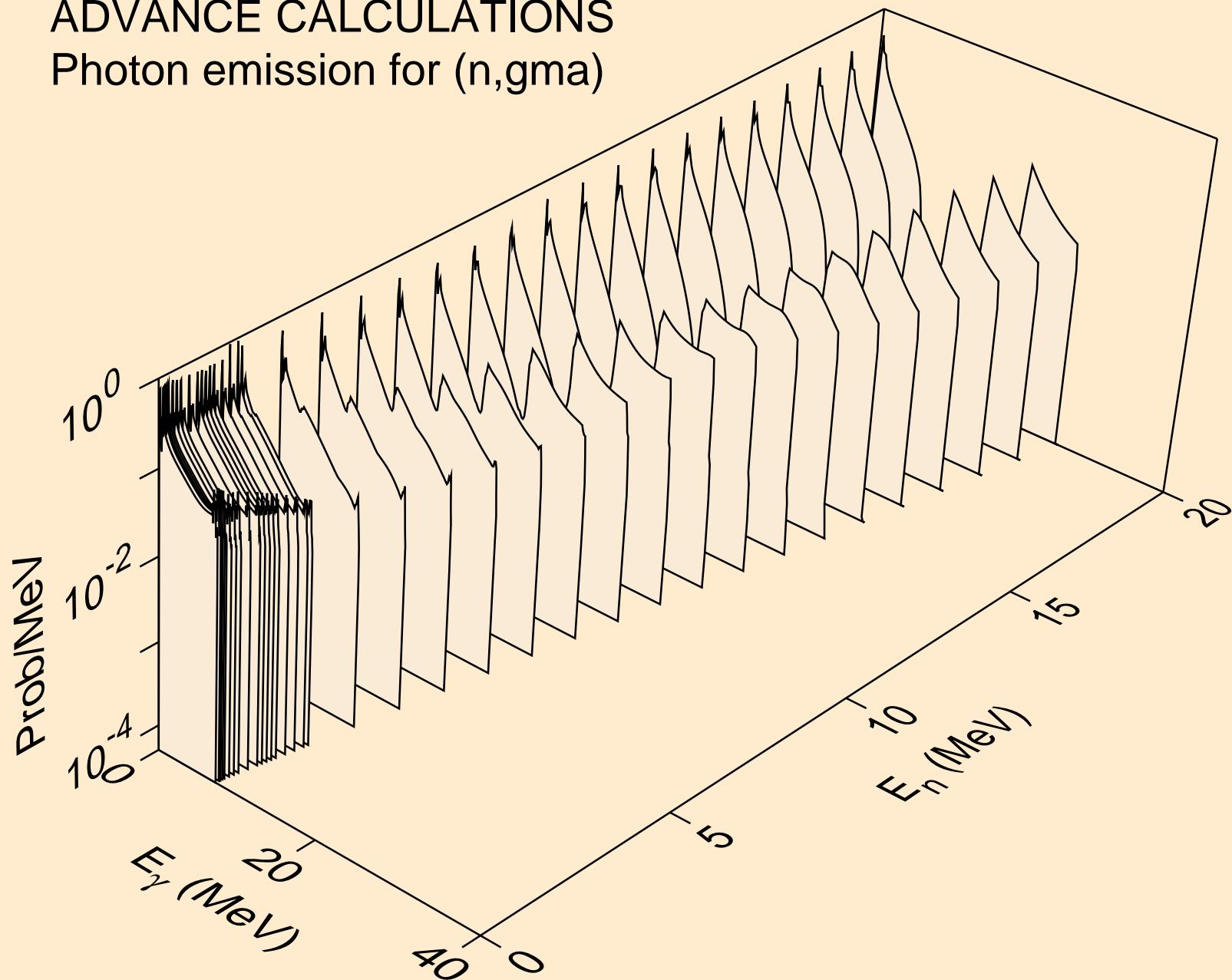
# ADVANCE CALCULATIONS

## Photon emission for $(n,n^*c)$



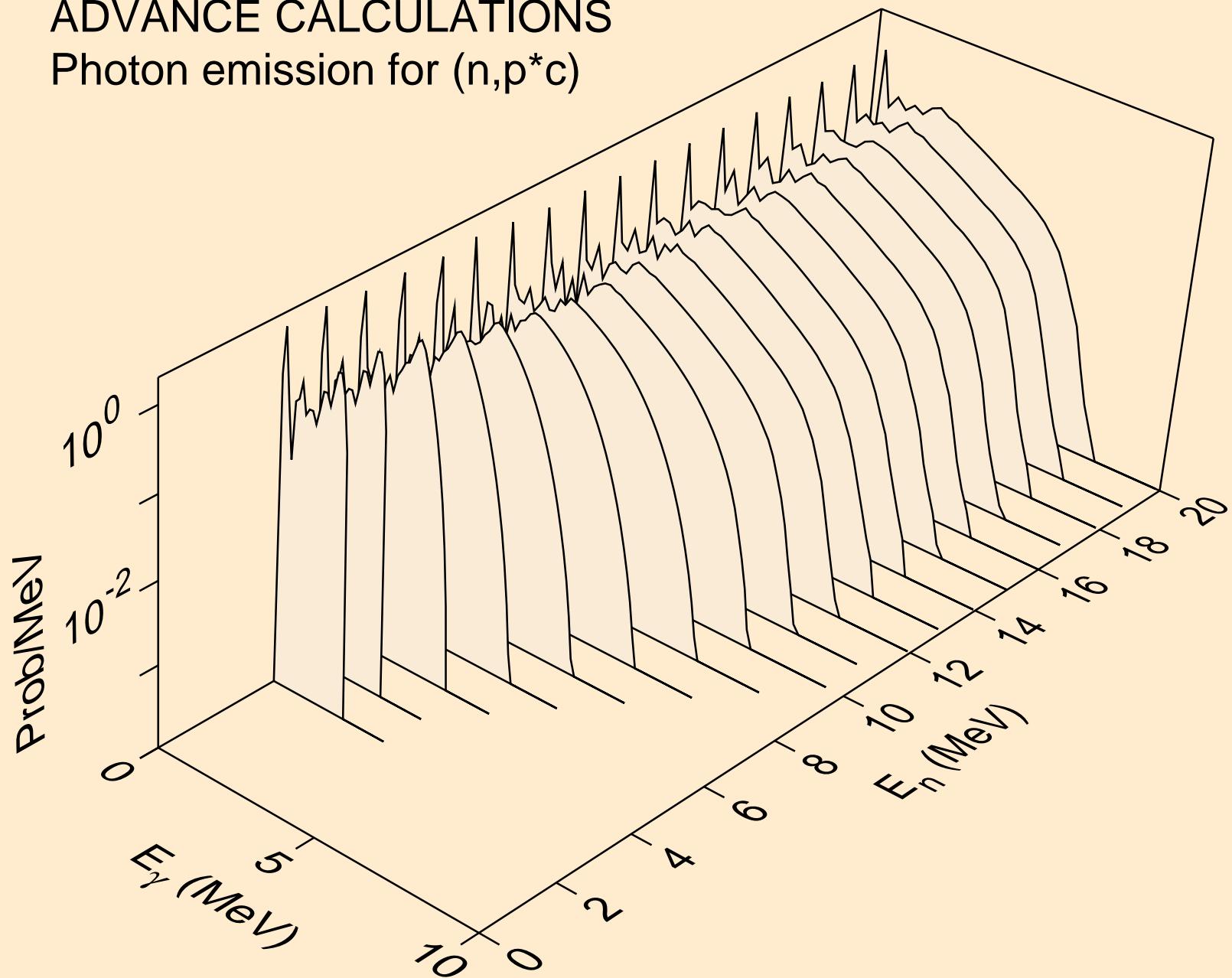
# ADVANCE CALCULATIONS

## Photon emission for (n,gma)



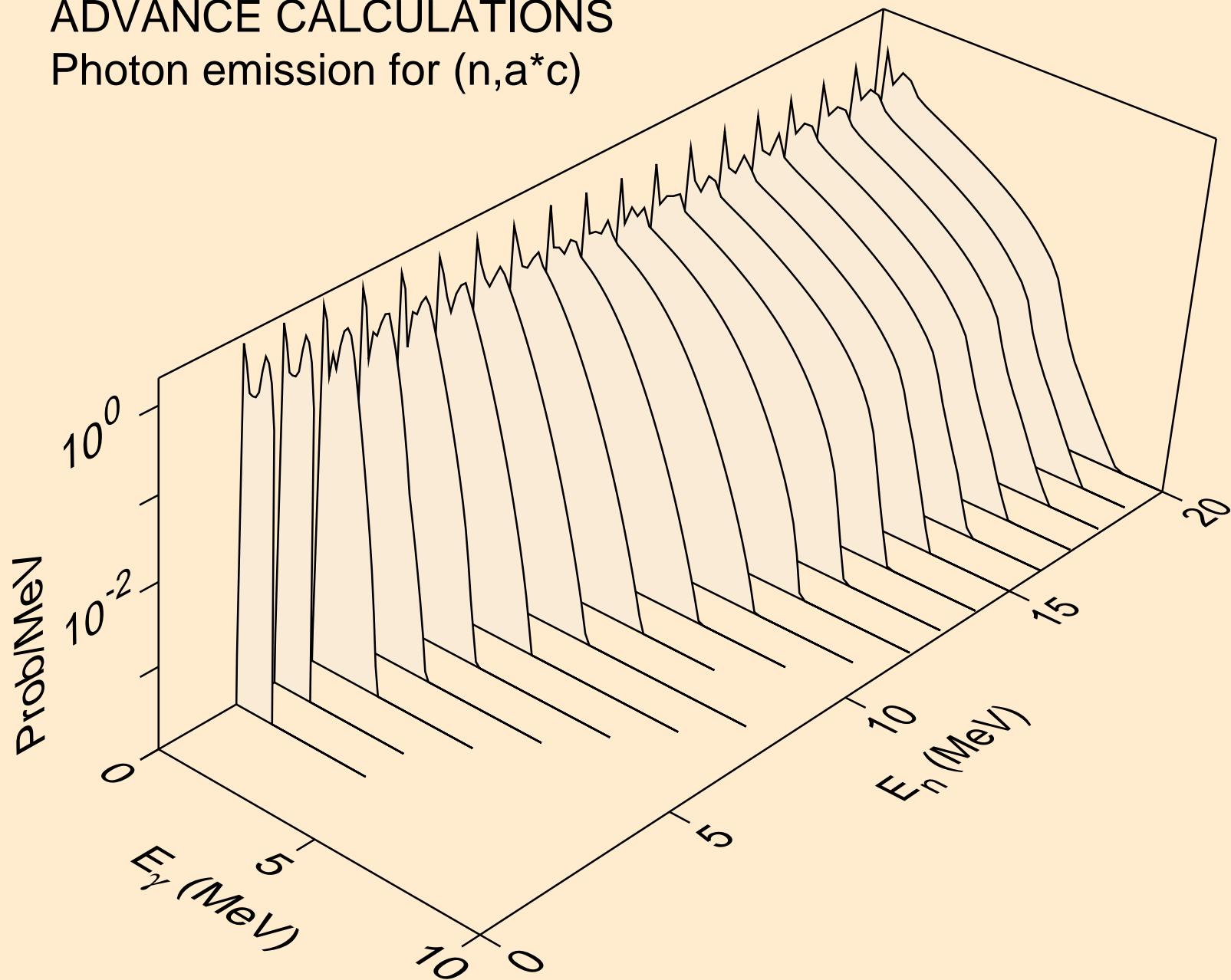
# ADVANCE CALCULATIONS

## Photon emission for $(n, p^* c)$



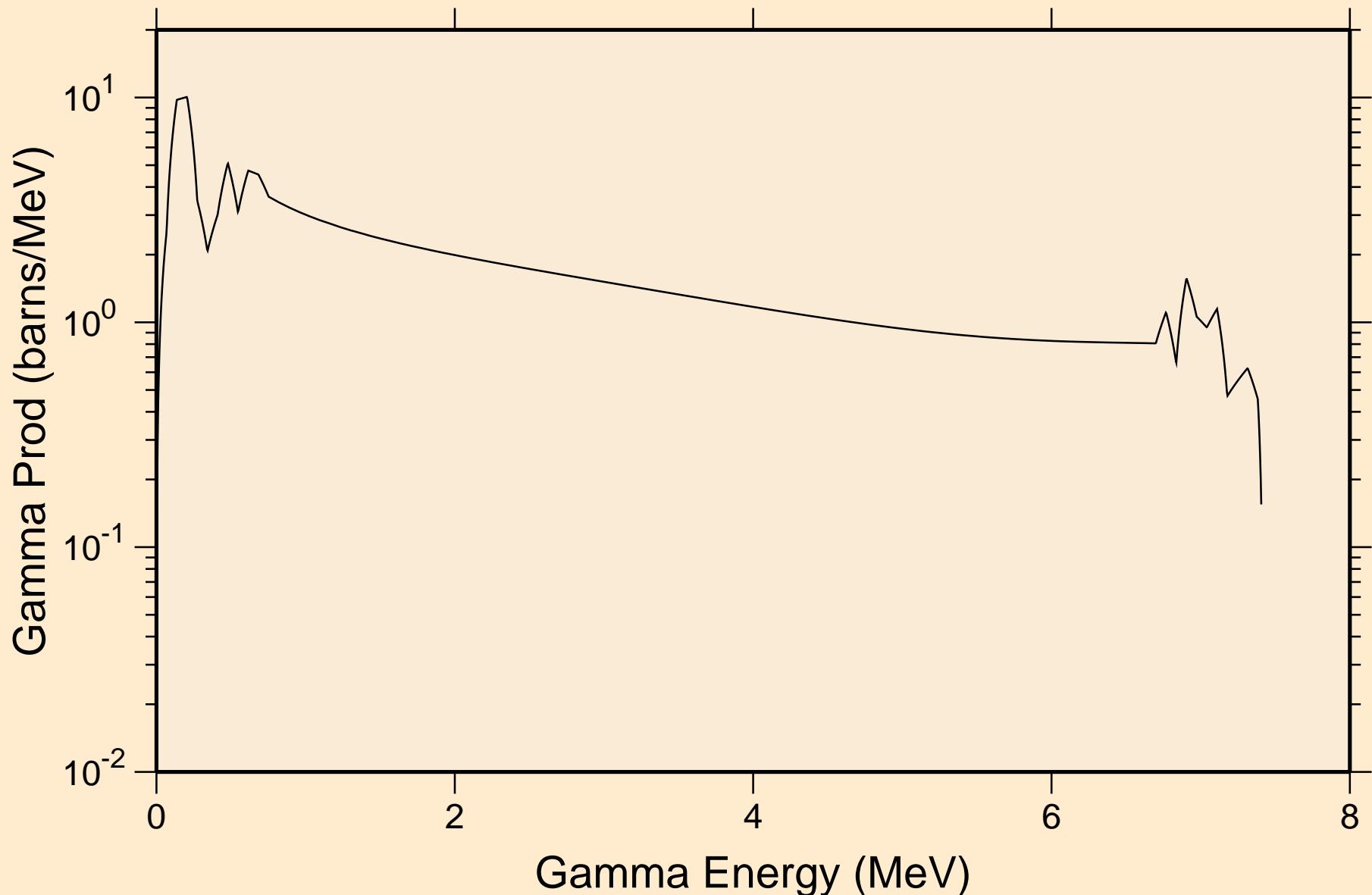
# ADVANCE CALCULATIONS

## Photon emission for $(n, a^*c)$

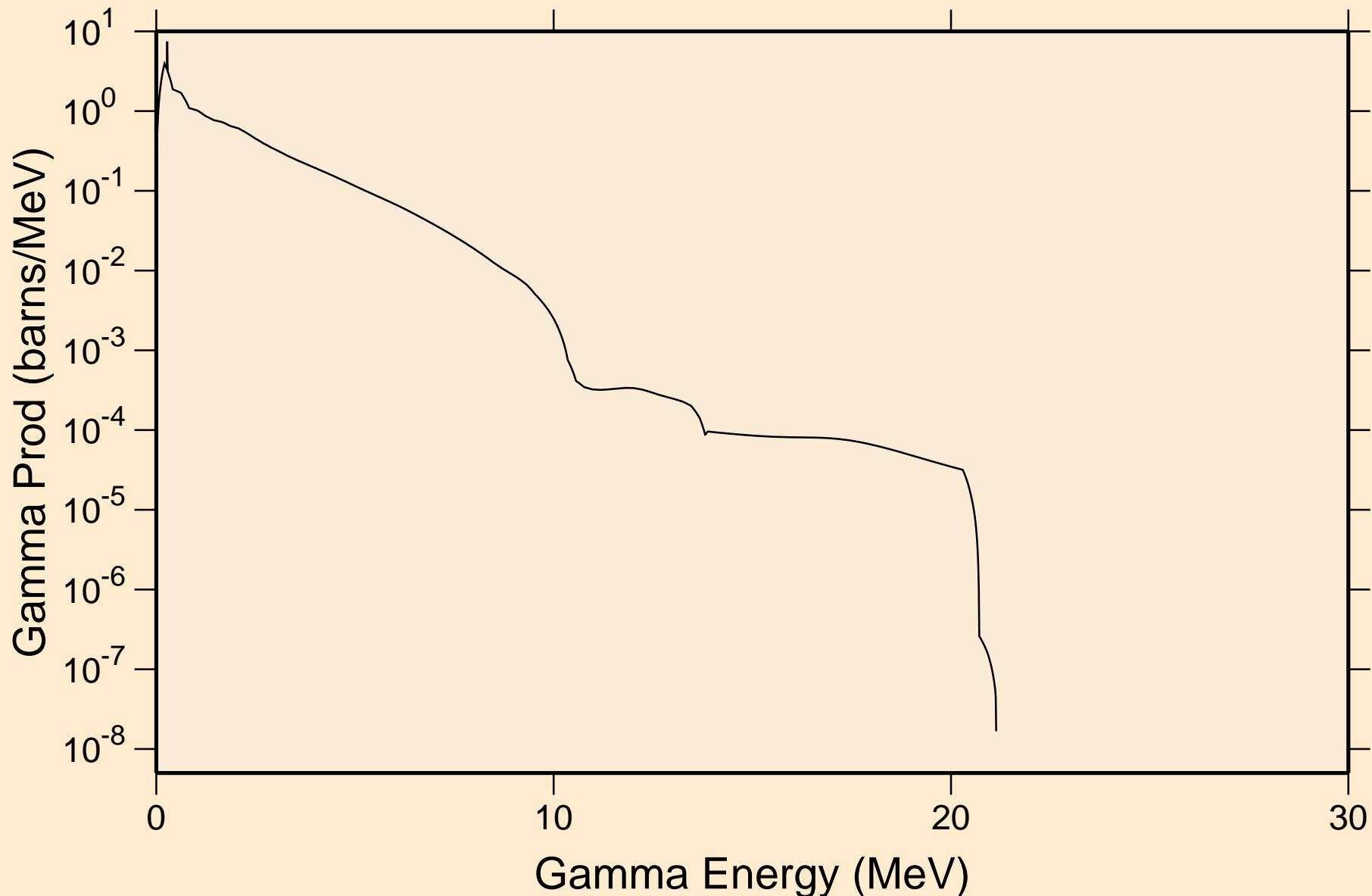


# ADVANCE CALCULATIONS

## thermal capture photon spectrum

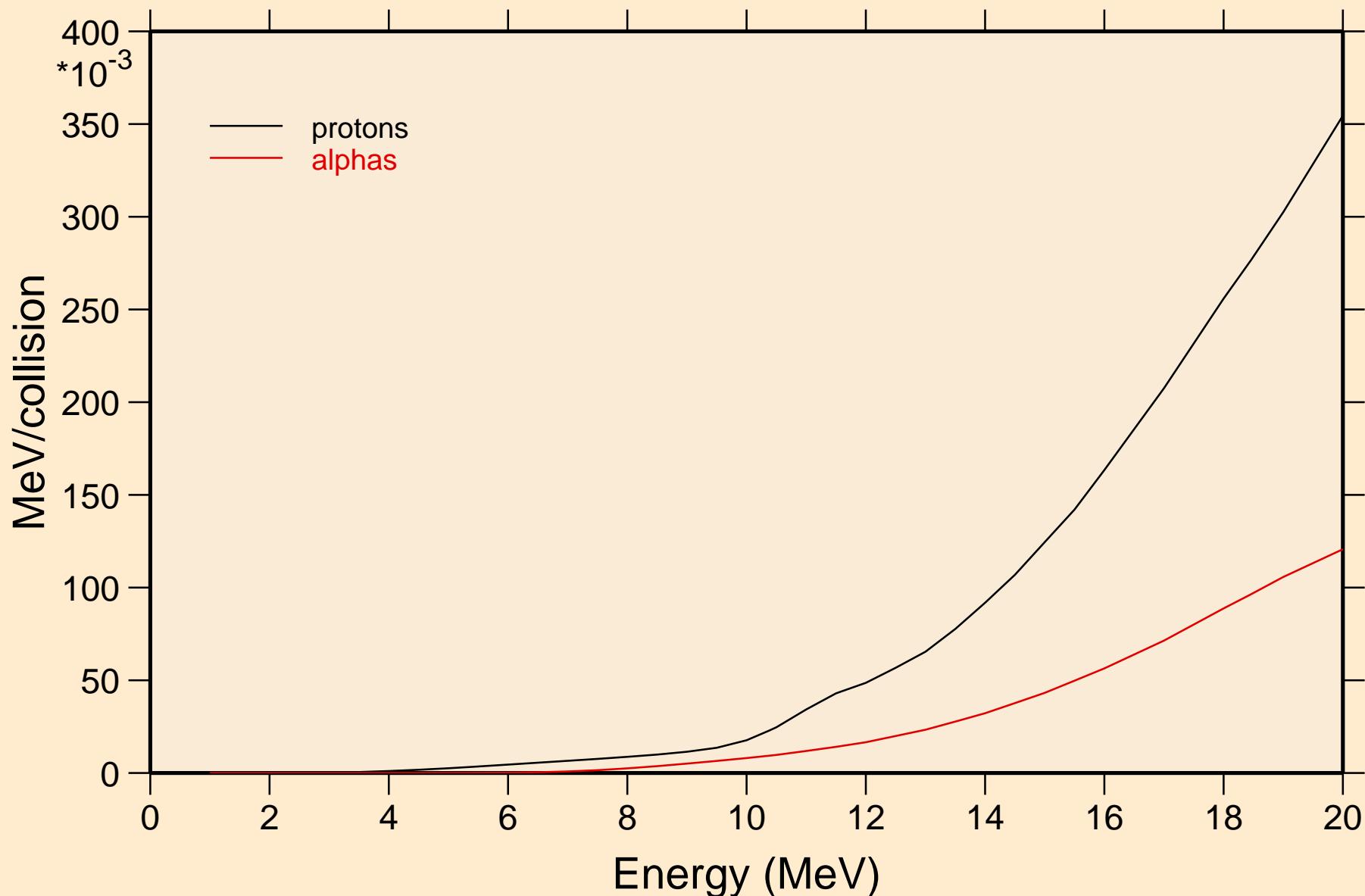


ADVANCE CALCULATIONS  
14 MeV photon spectrum



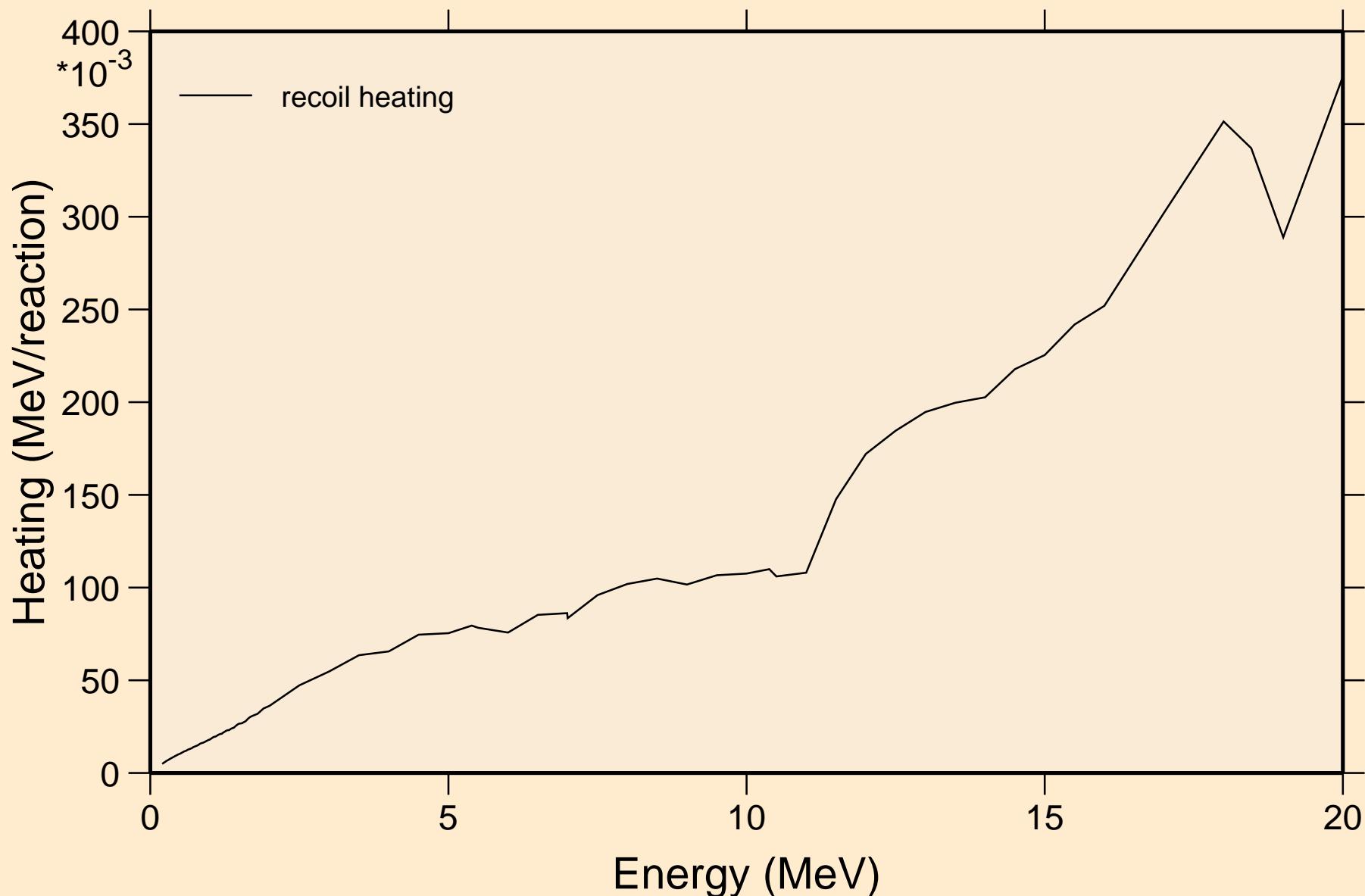
# ADVANCE CALCULATIONS

## Particle heating contributions



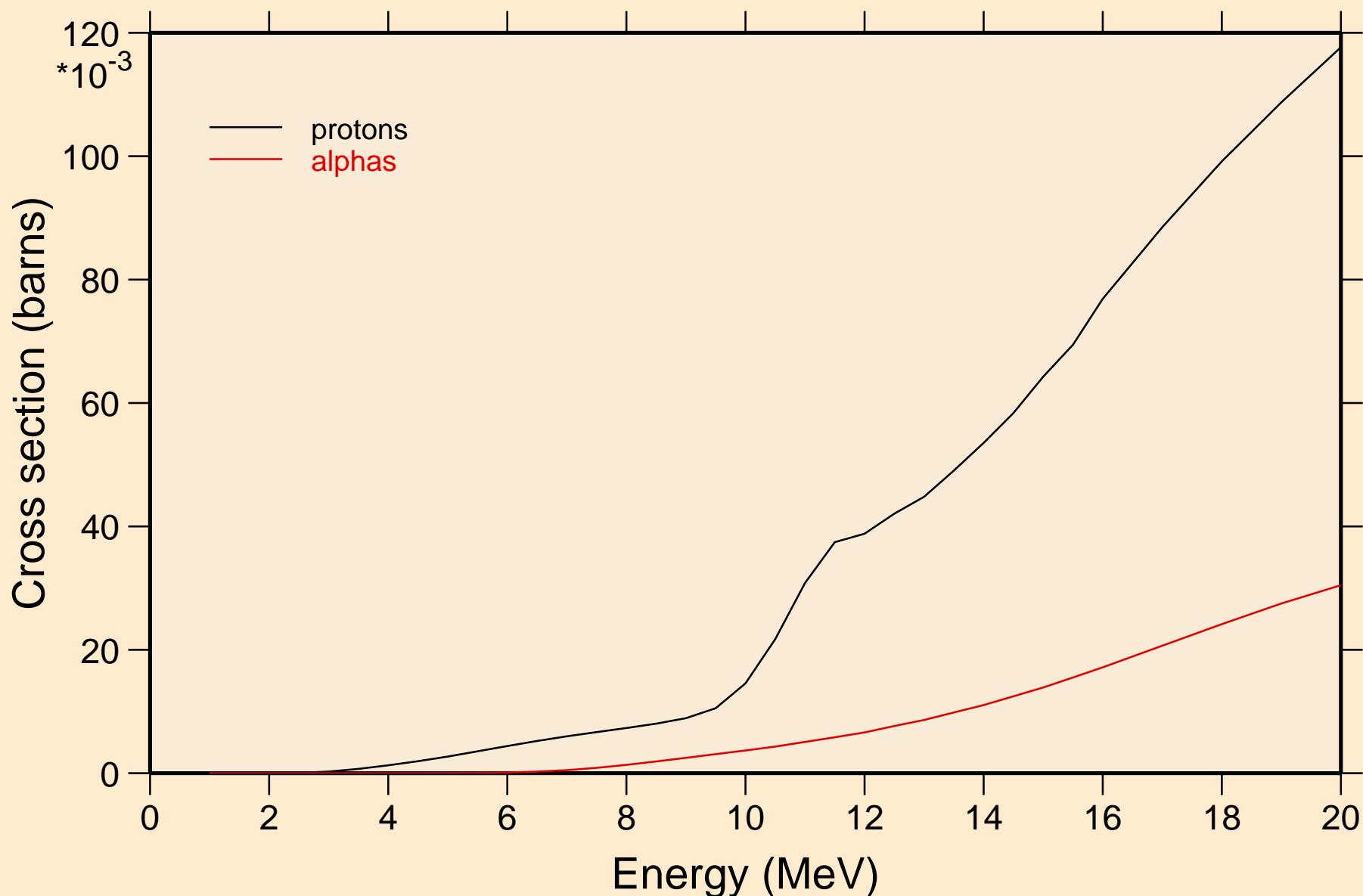
# ADVANCE CALCULATIONS

## Recoil Heating



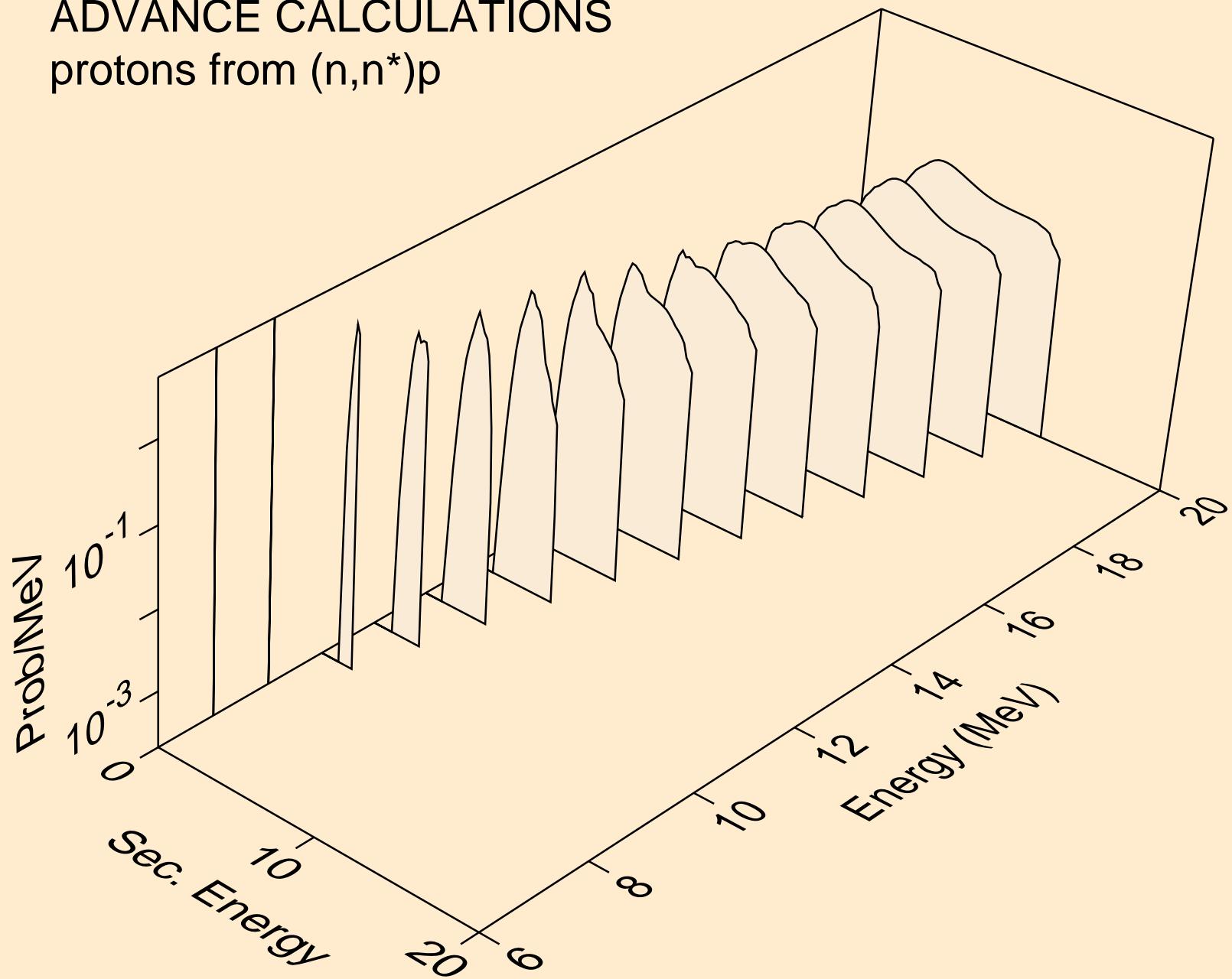
# ADVANCE CALCULATIONS

## Particle production cross sections



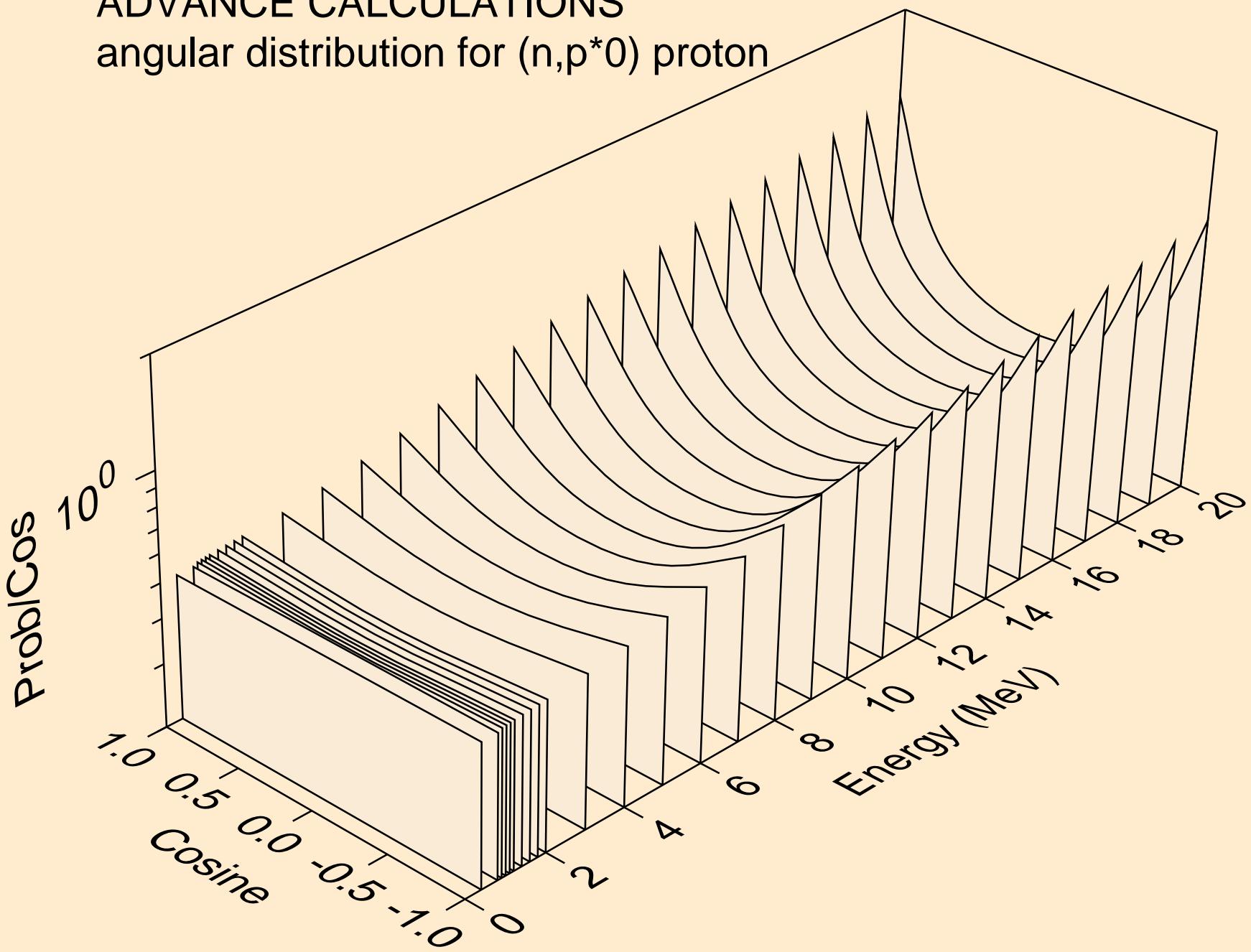
# ADVANCE CALCULATIONS

protons from  $(n,n^*)p$



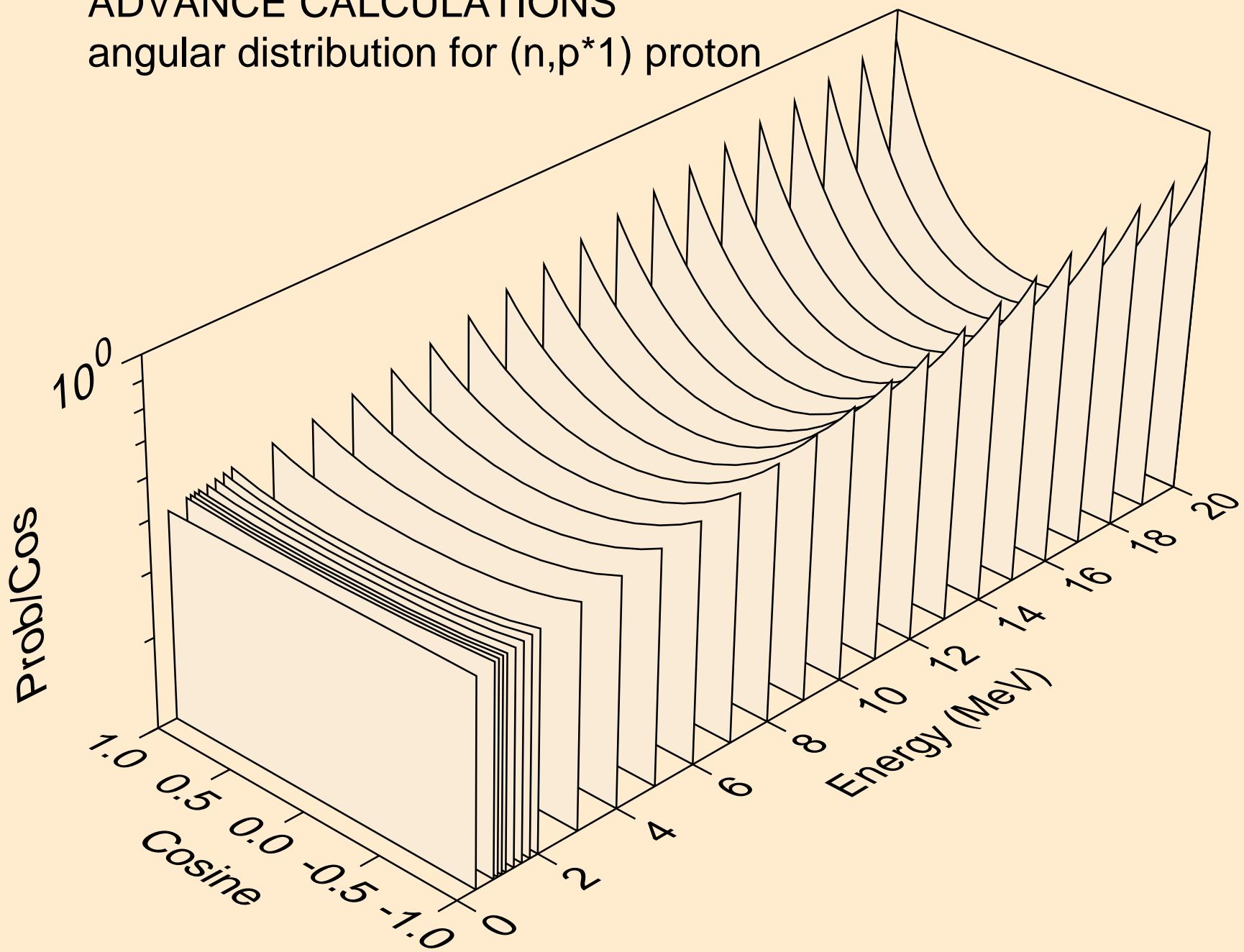
# ADVANCE CALCULATIONS

## angular distribution for $(n,p^*0)$ proton



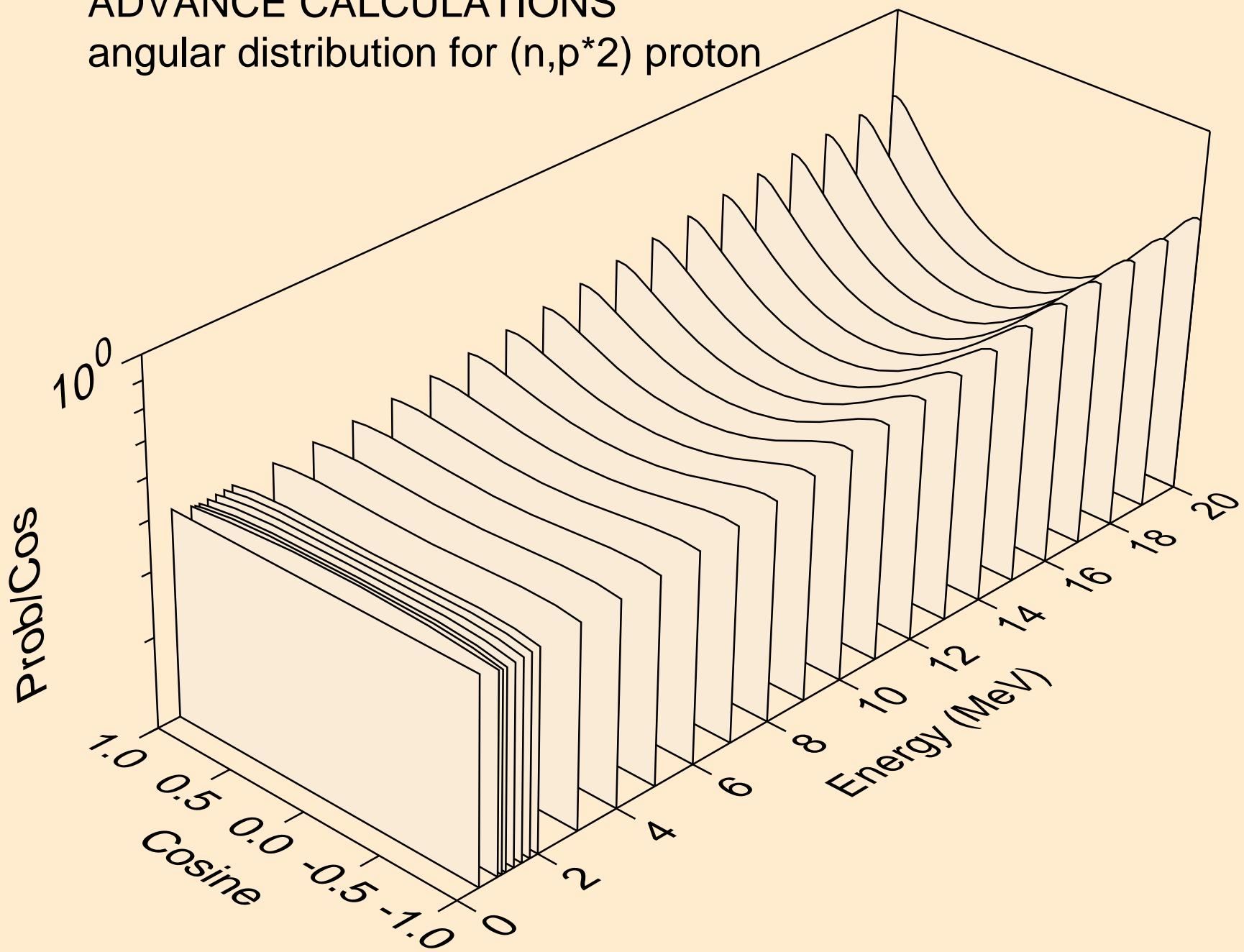
# ADVANCE CALCULATIONS

## angular distribution for ( $n,p^*1$ ) proton



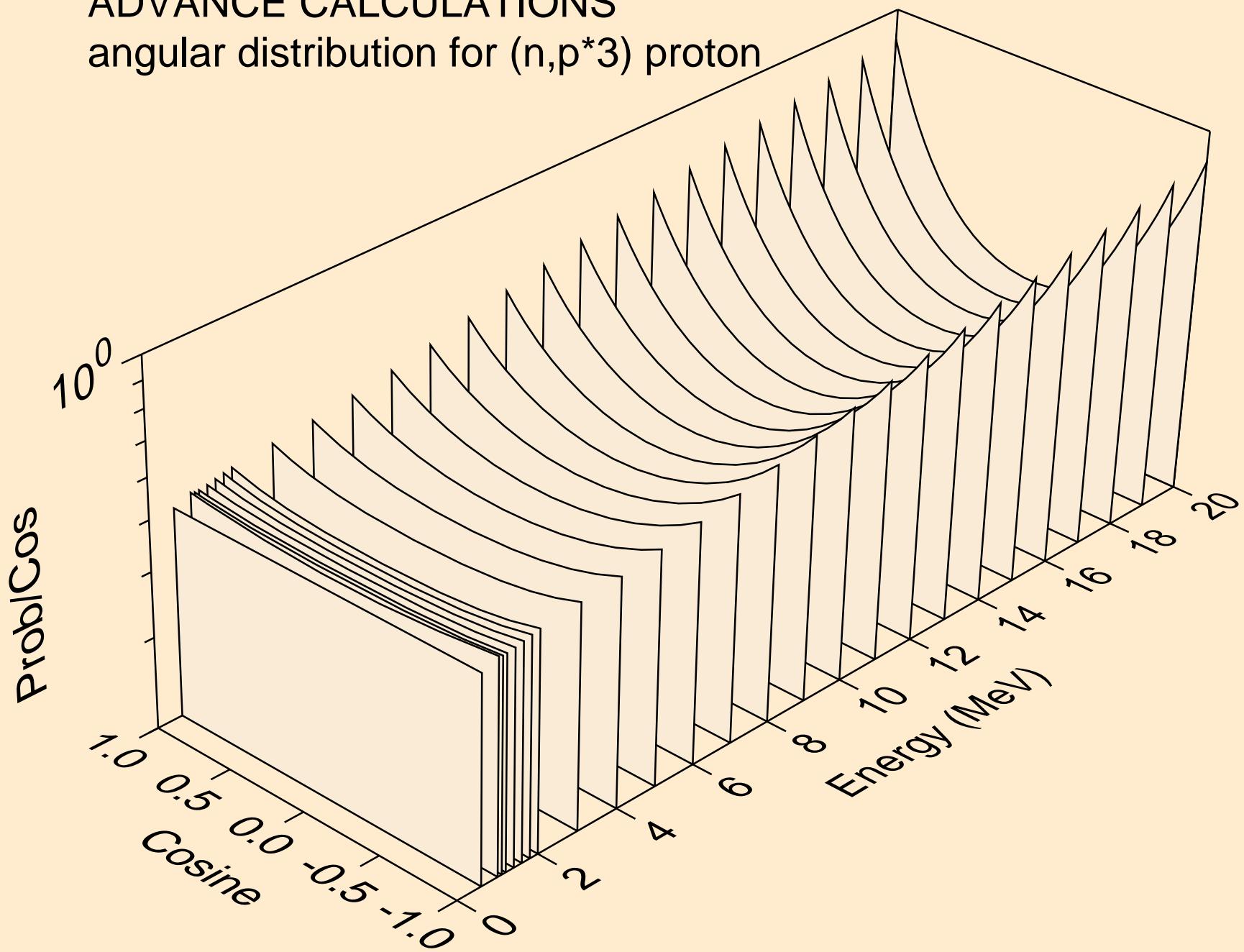
# ADVANCE CALCULATIONS

## angular distribution for $(n,p^*2)$ proton



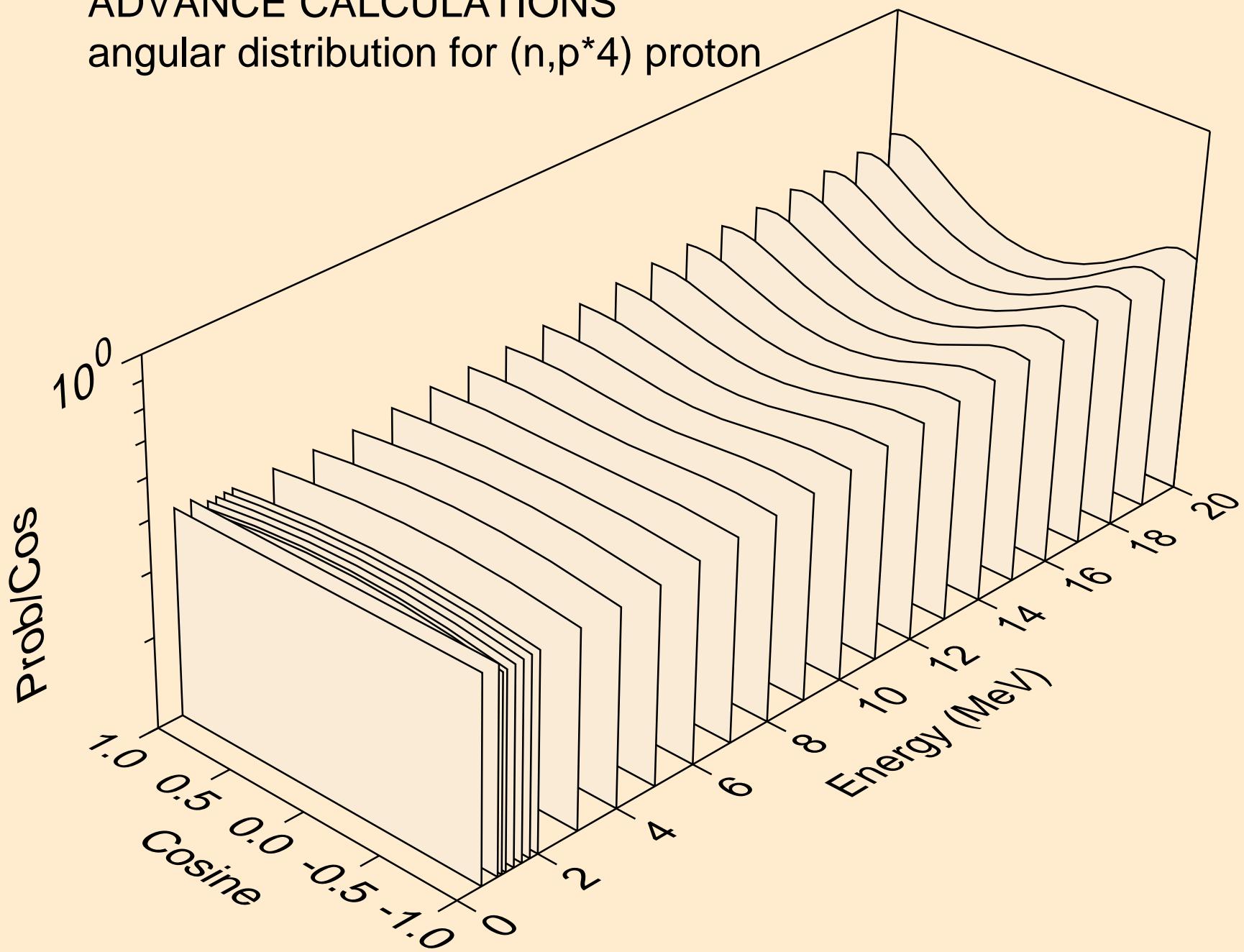
# ADVANCE CALCULATIONS

## angular distribution for $(n,p^*3)$ proton



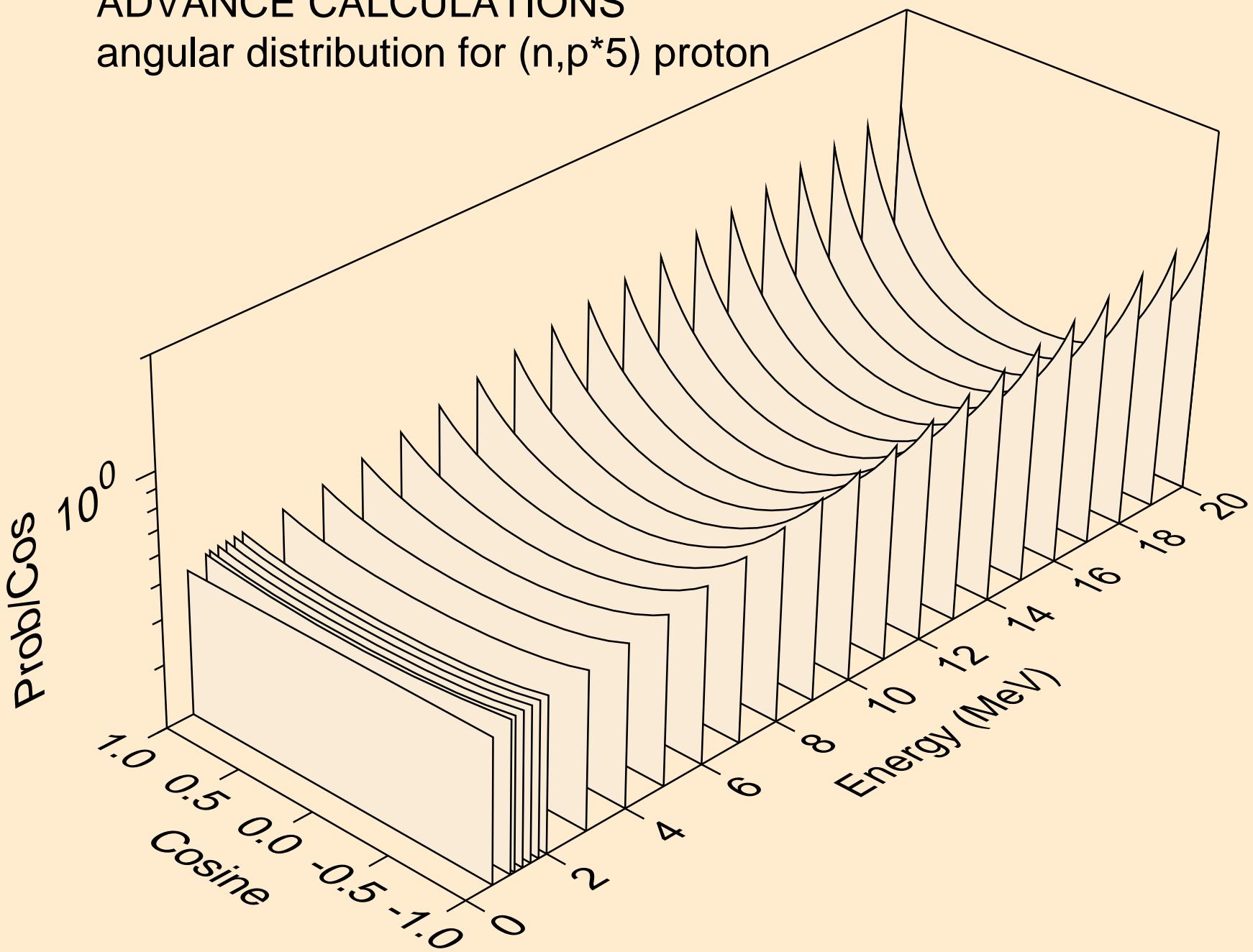
# ADVANCE CALCULATIONS

## angular distribution for $(n,p^*4)$ proton



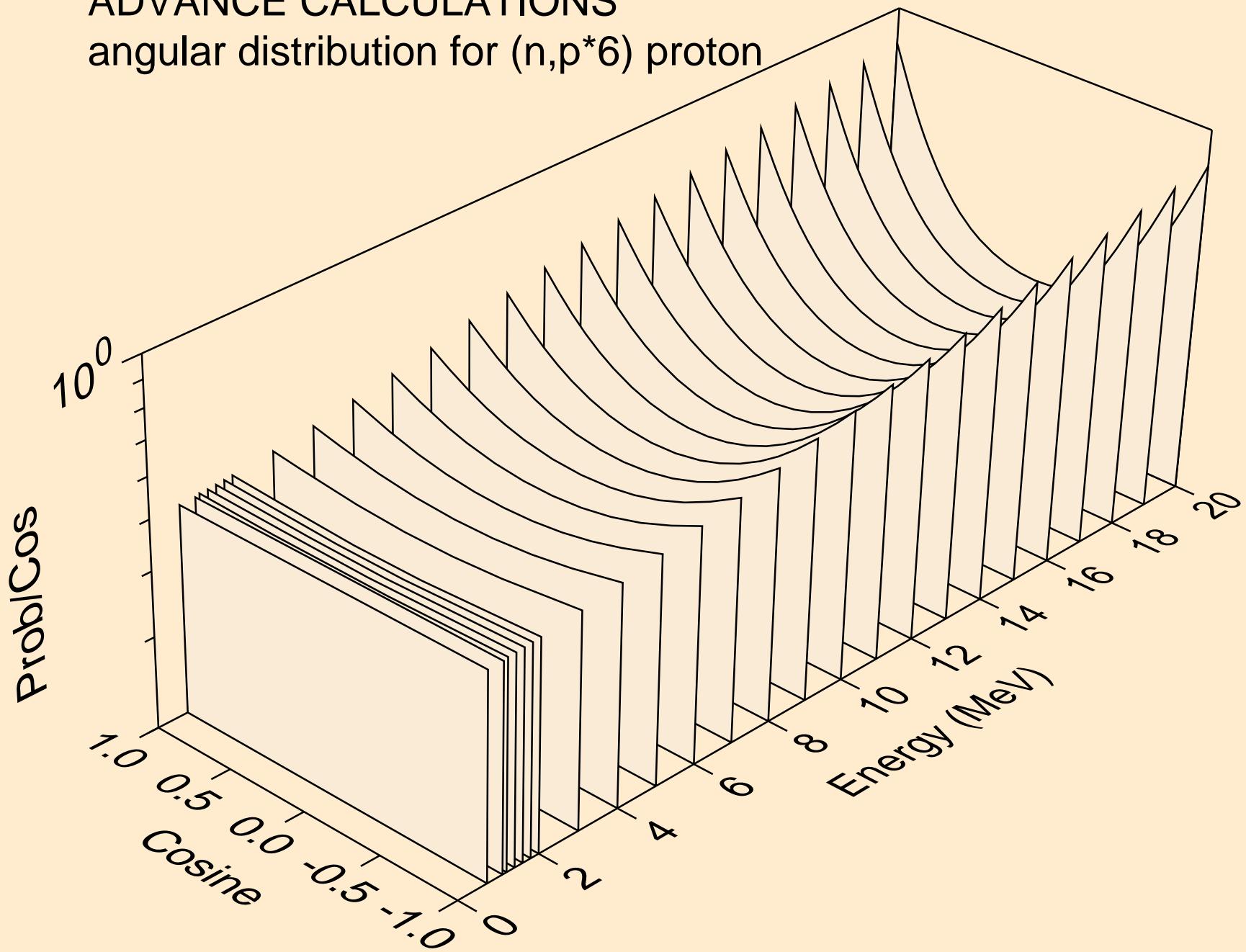
# ADVANCE CALCULATIONS

## angular distribution for ( $n,p^*5$ ) proton



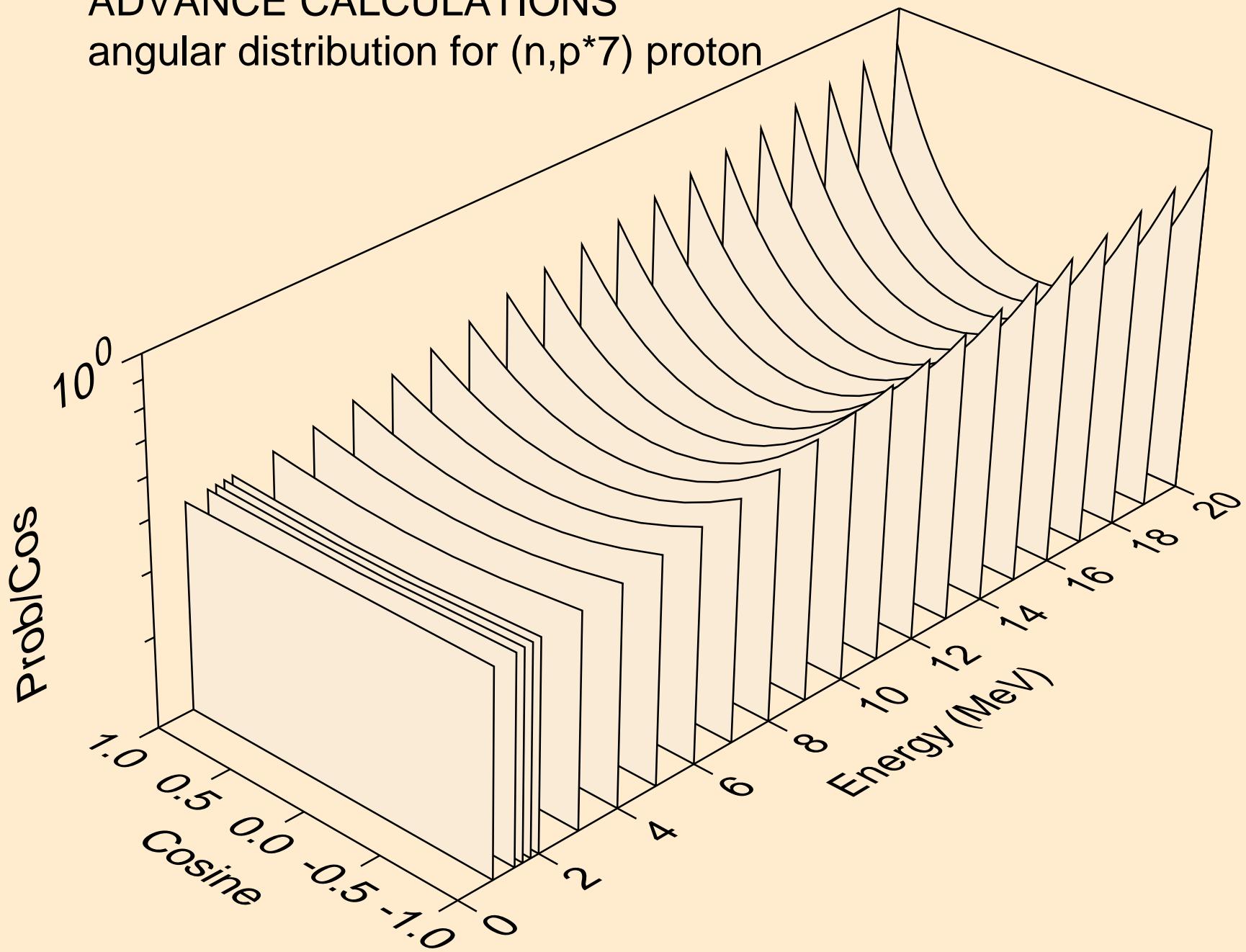
# ADVANCE CALCULATIONS

## angular distribution for $(n,p^*6)$ proton



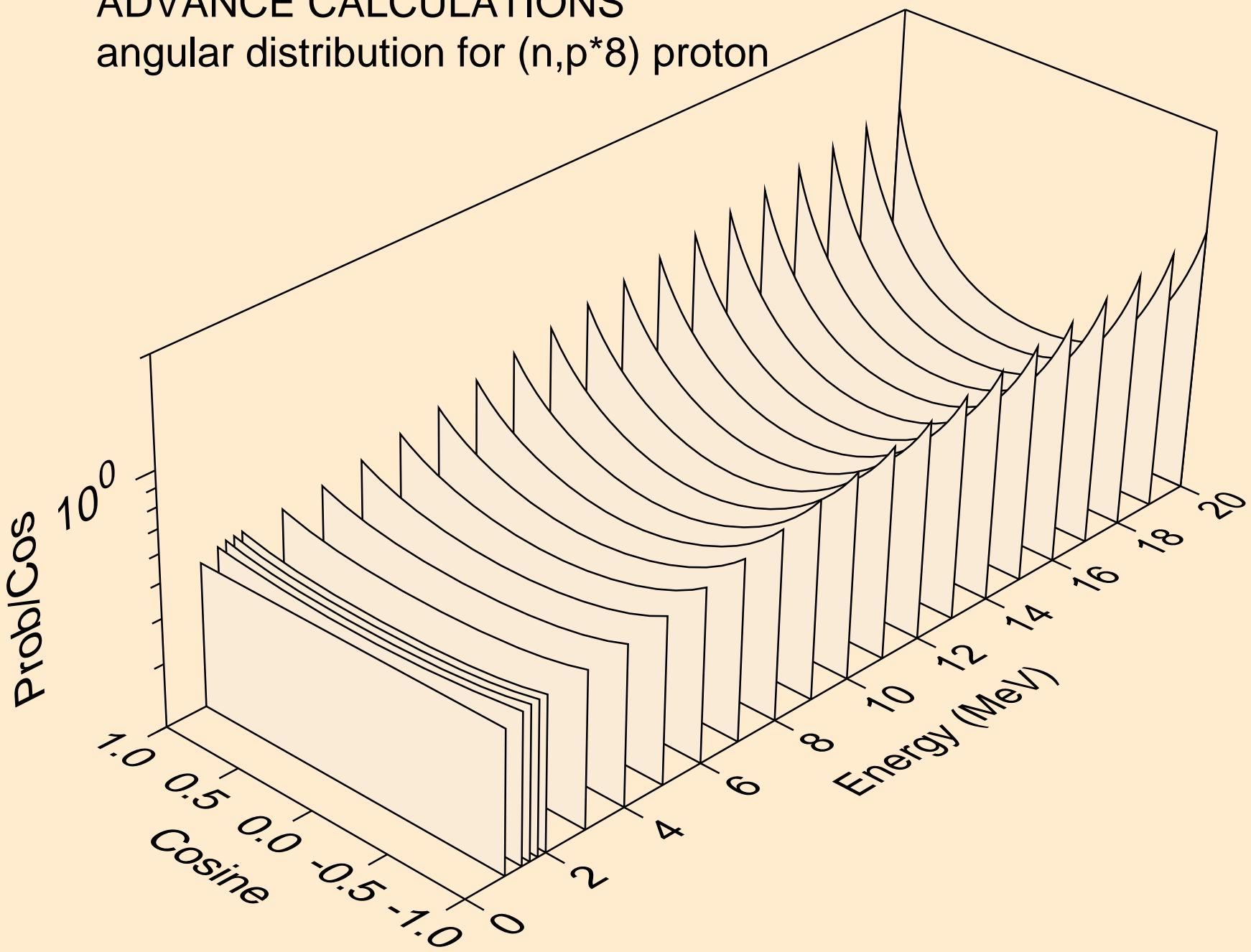
# ADVANCE CALCULATIONS

## angular distribution for ( $n,p^*7$ ) proton



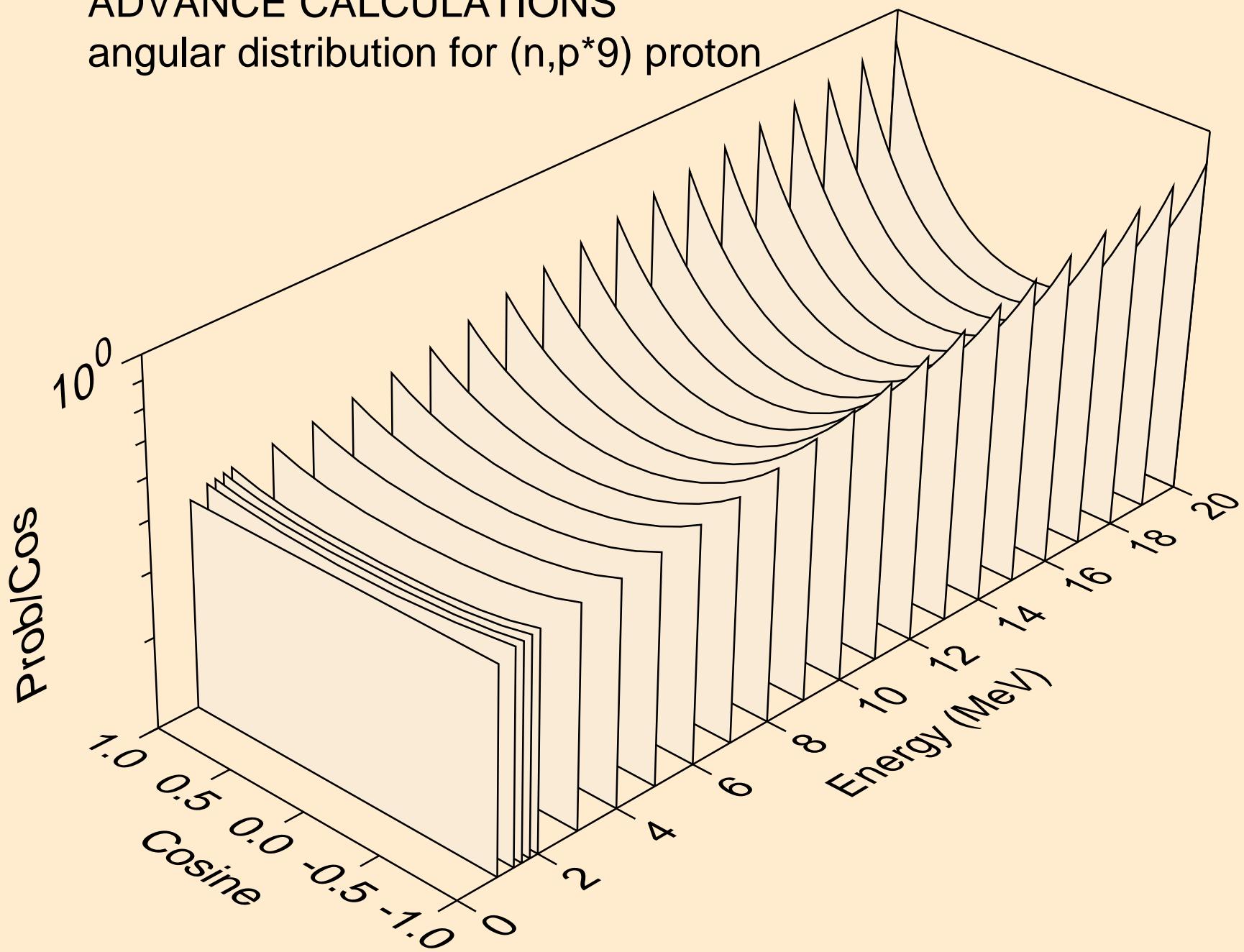
# ADVANCE CALCULATIONS

## angular distribution for (n,p\*8) proton



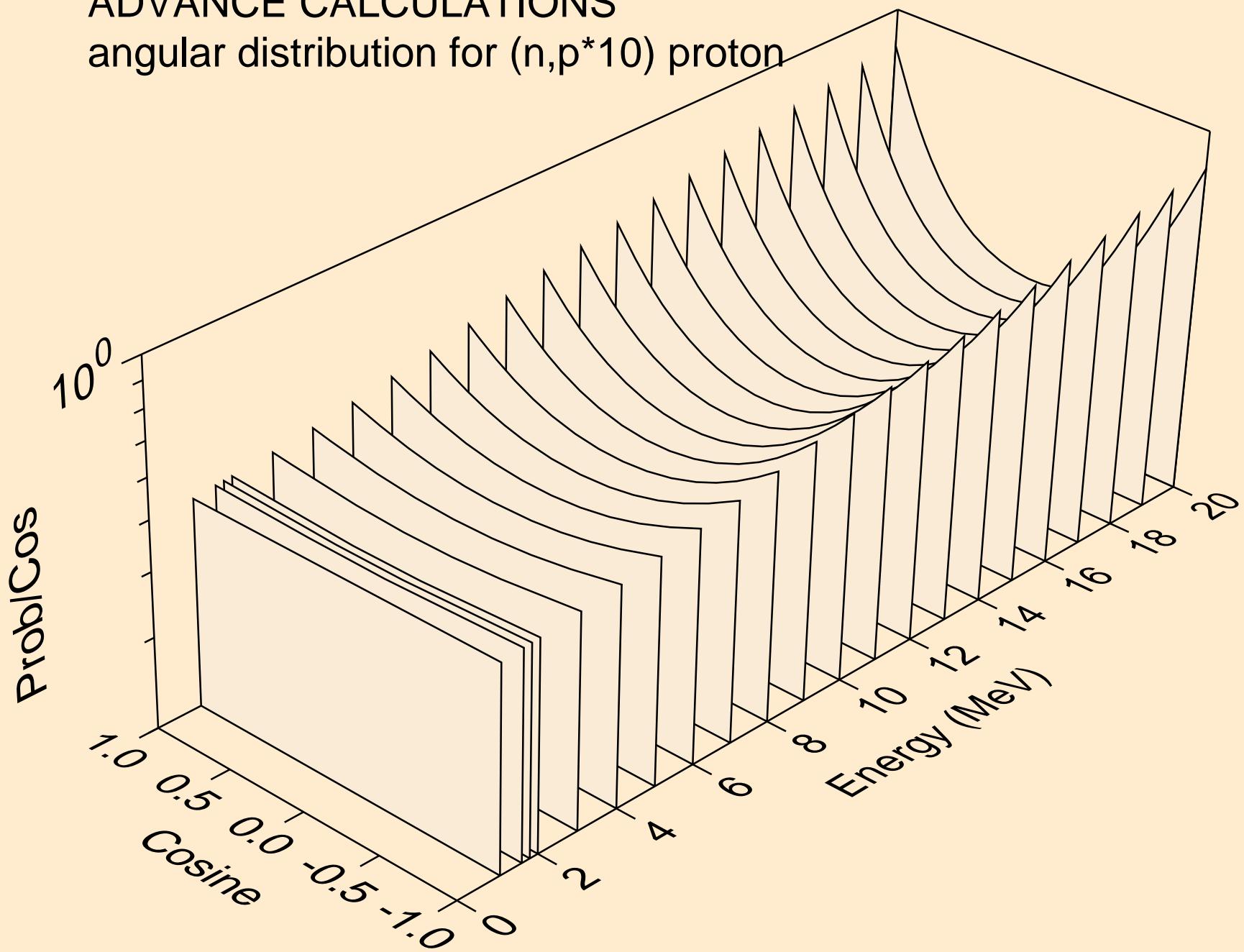
# ADVANCE CALCULATIONS

## angular distribution for (n,p\*9) proton



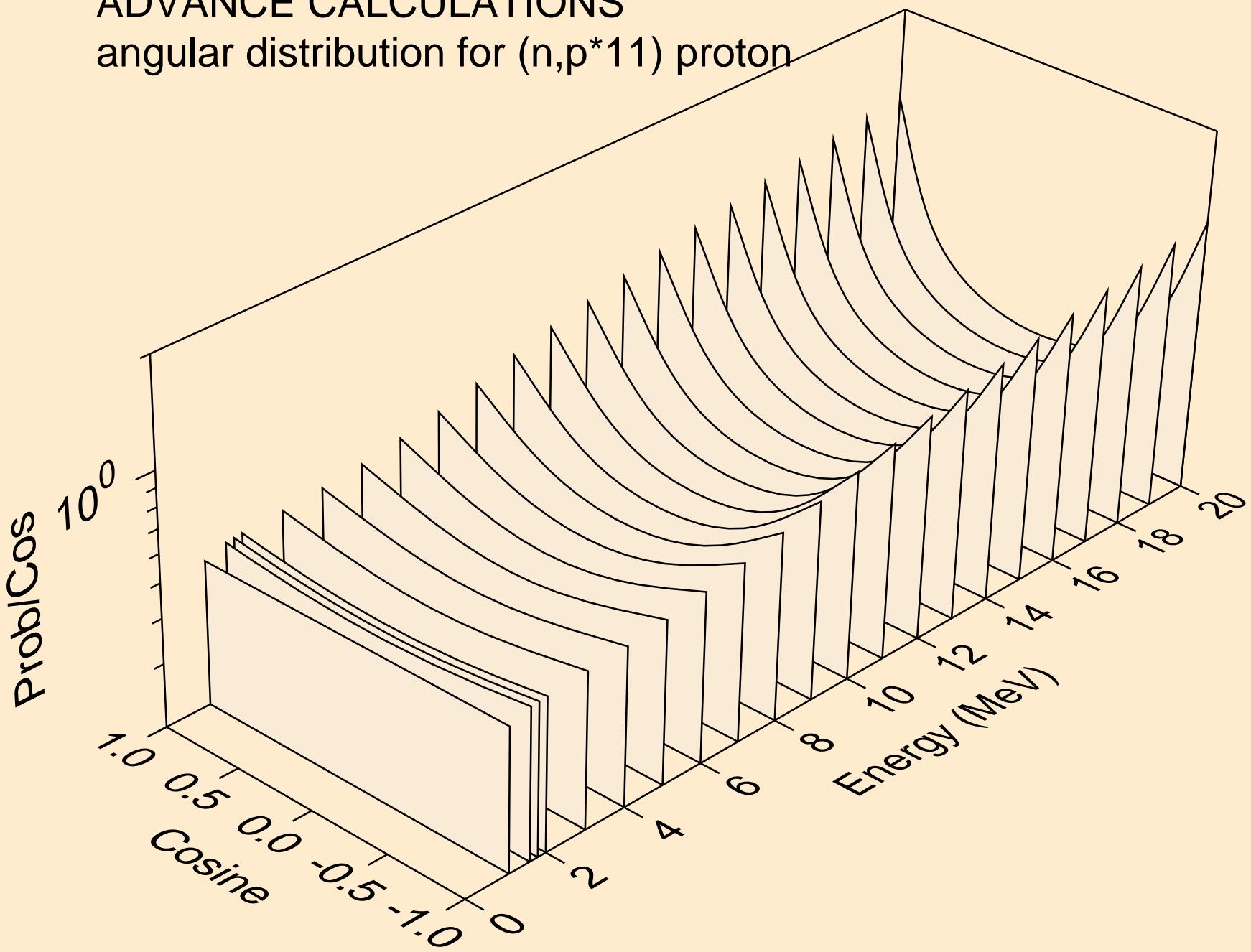
# ADVANCE CALCULATIONS

## angular distribution for (n,p\*10) proton



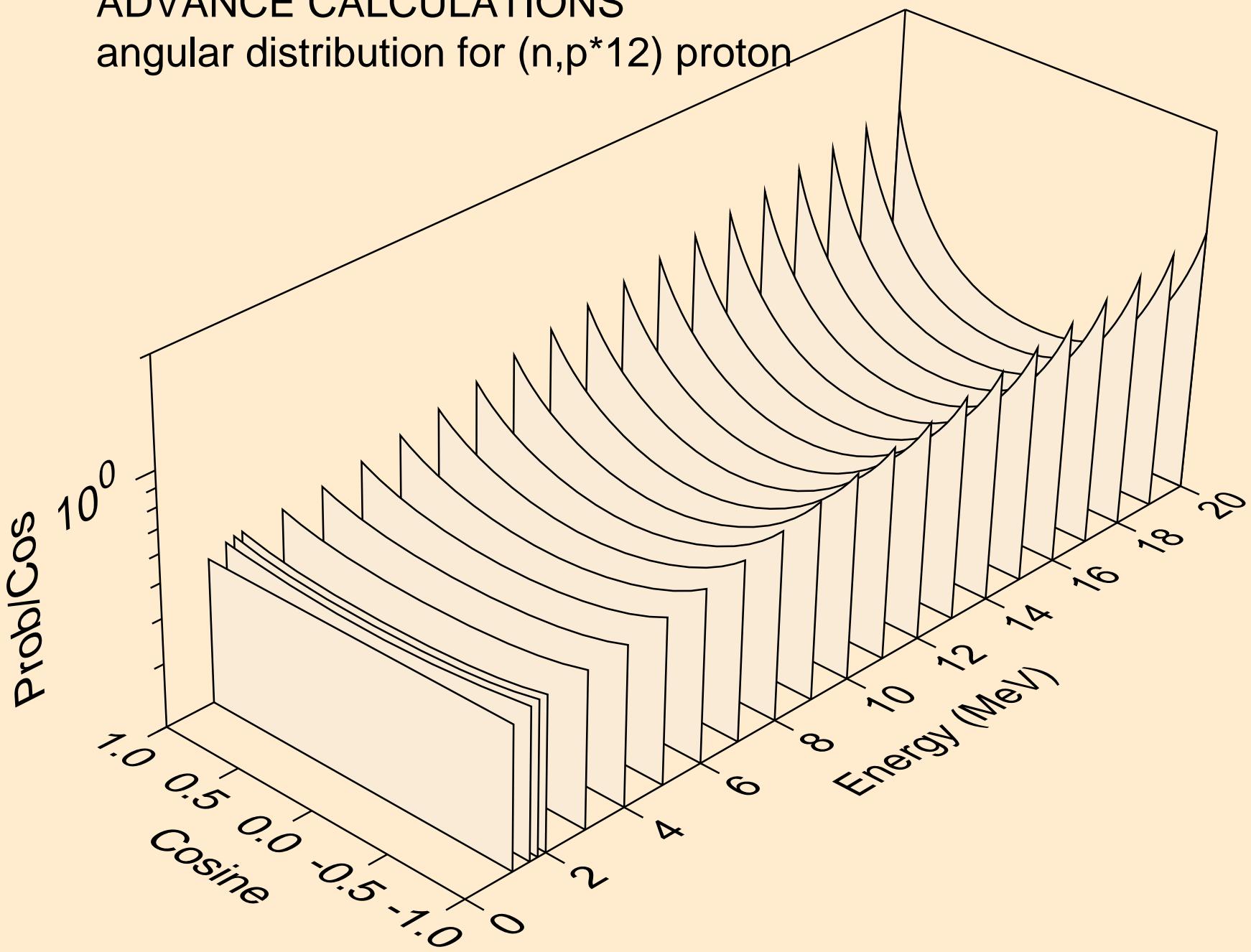
# ADVANCE CALCULATIONS

## angular distribution for ( $n,p^*11$ ) proton



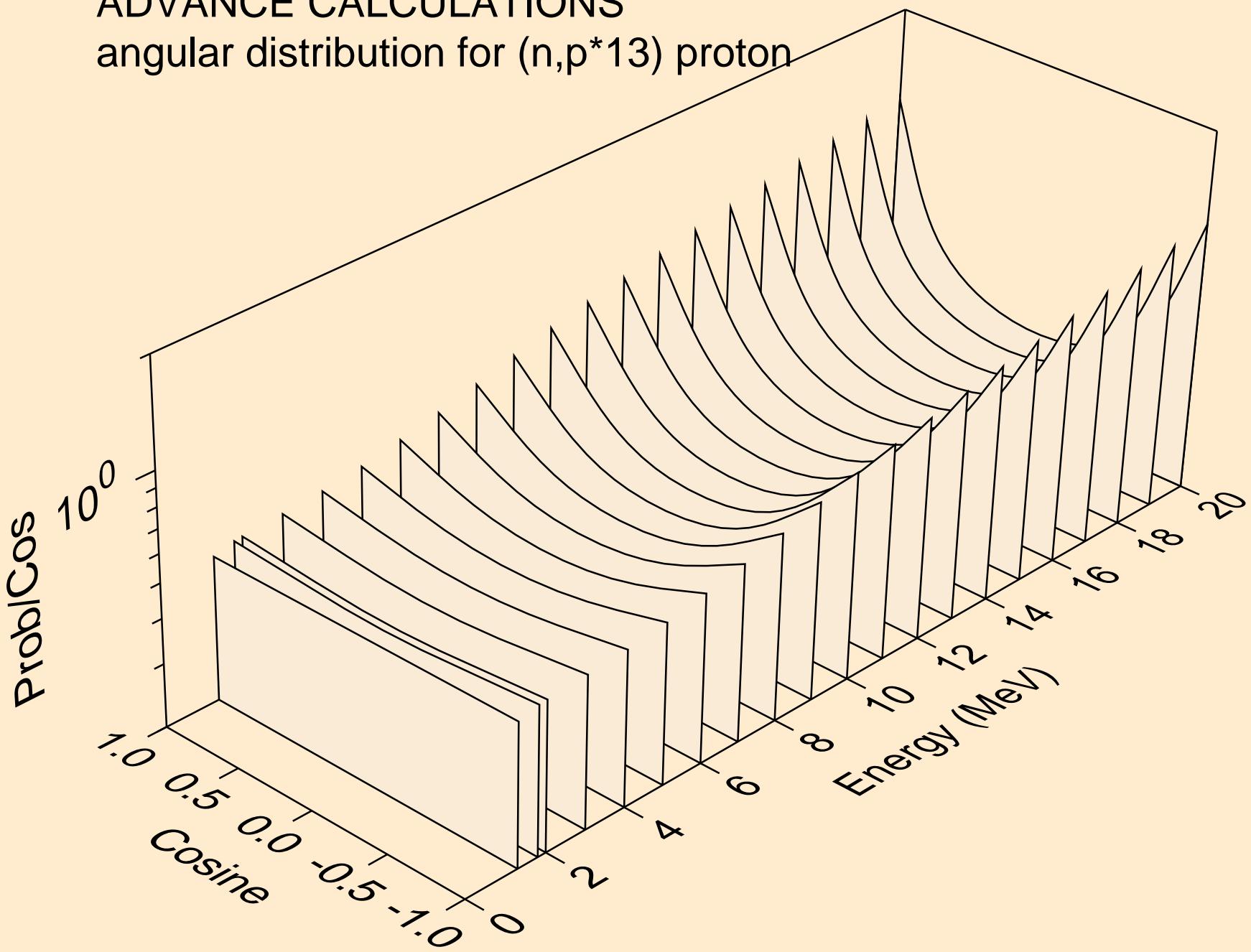
# ADVANCE CALCULATIONS

## angular distribution for ( $n,p^*12$ ) proton



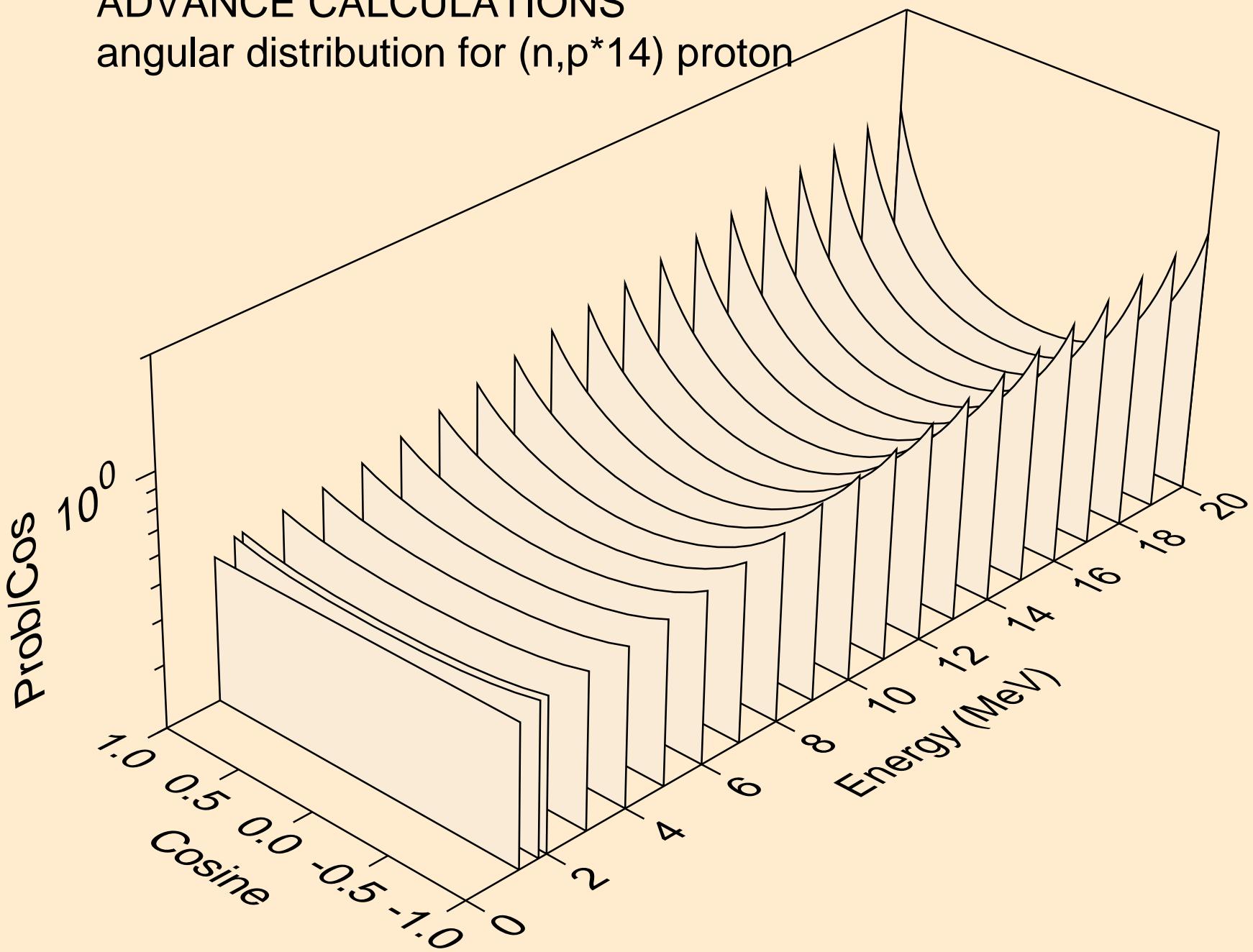
# ADVANCE CALCULATIONS

## angular distribution for ( $n,p^*13$ ) proton



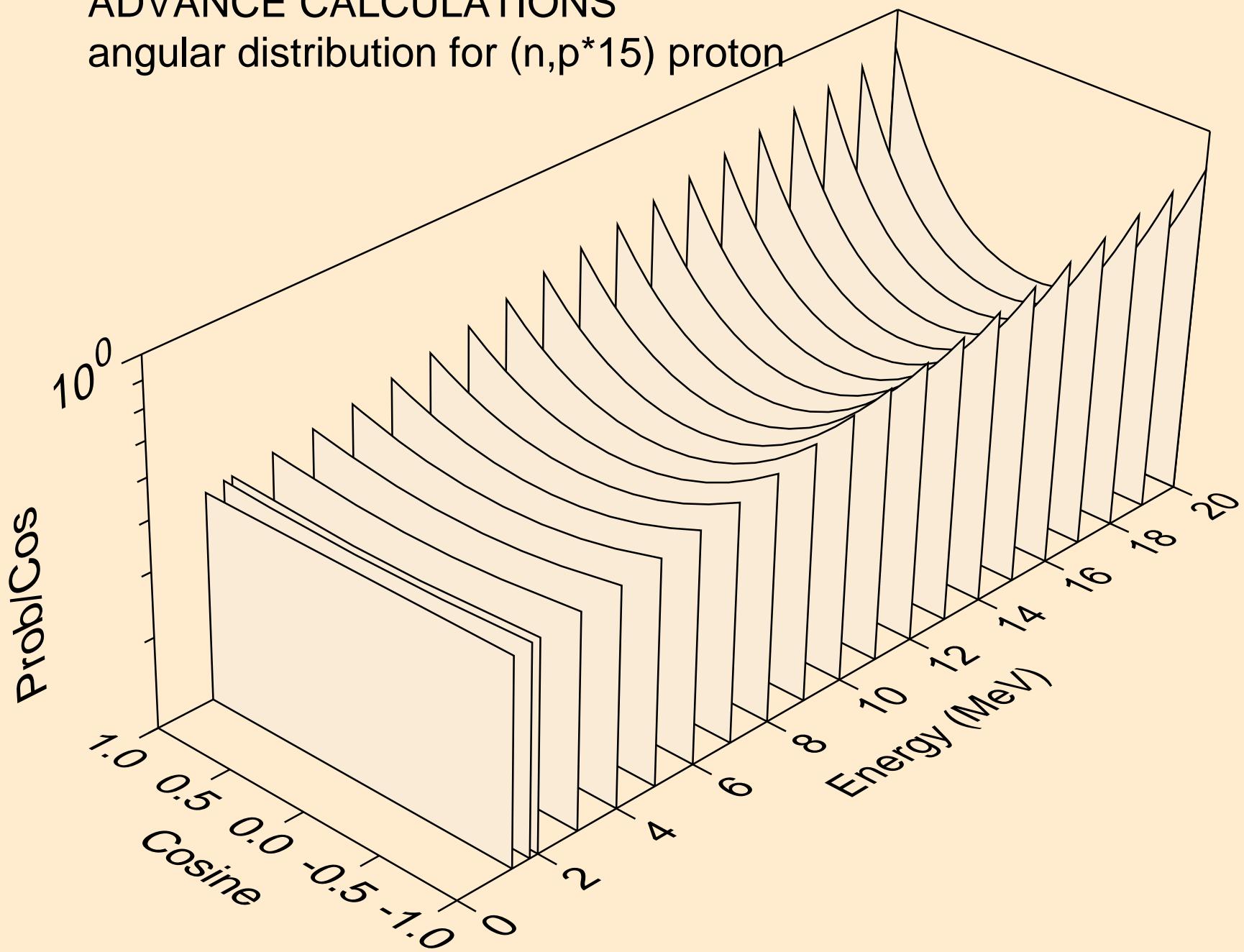
# ADVANCE CALCULATIONS

## angular distribution for ( $n,p^*14$ ) proton



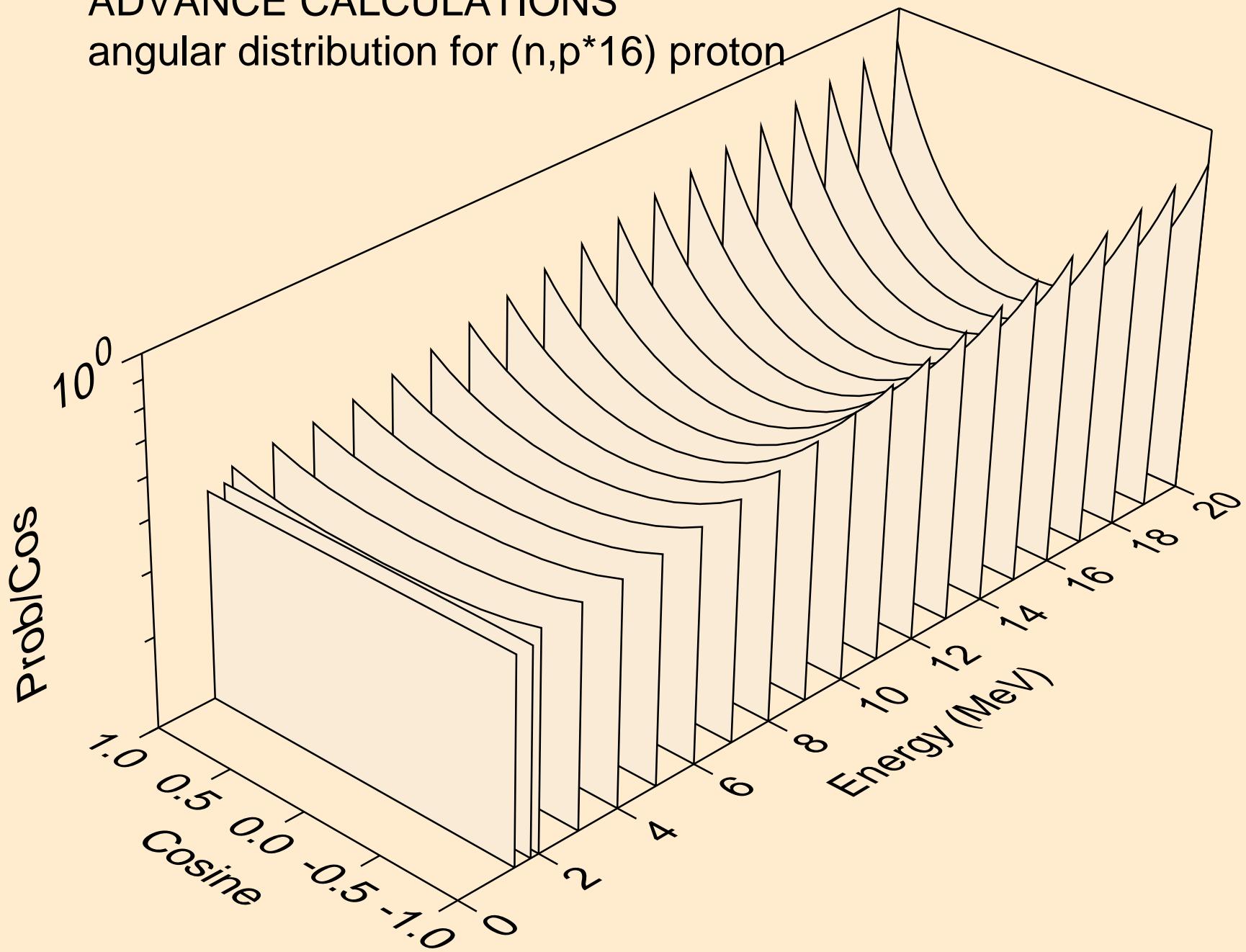
# ADVANCE CALCULATIONS

## angular distribution for ( $n,p^*15$ ) proton



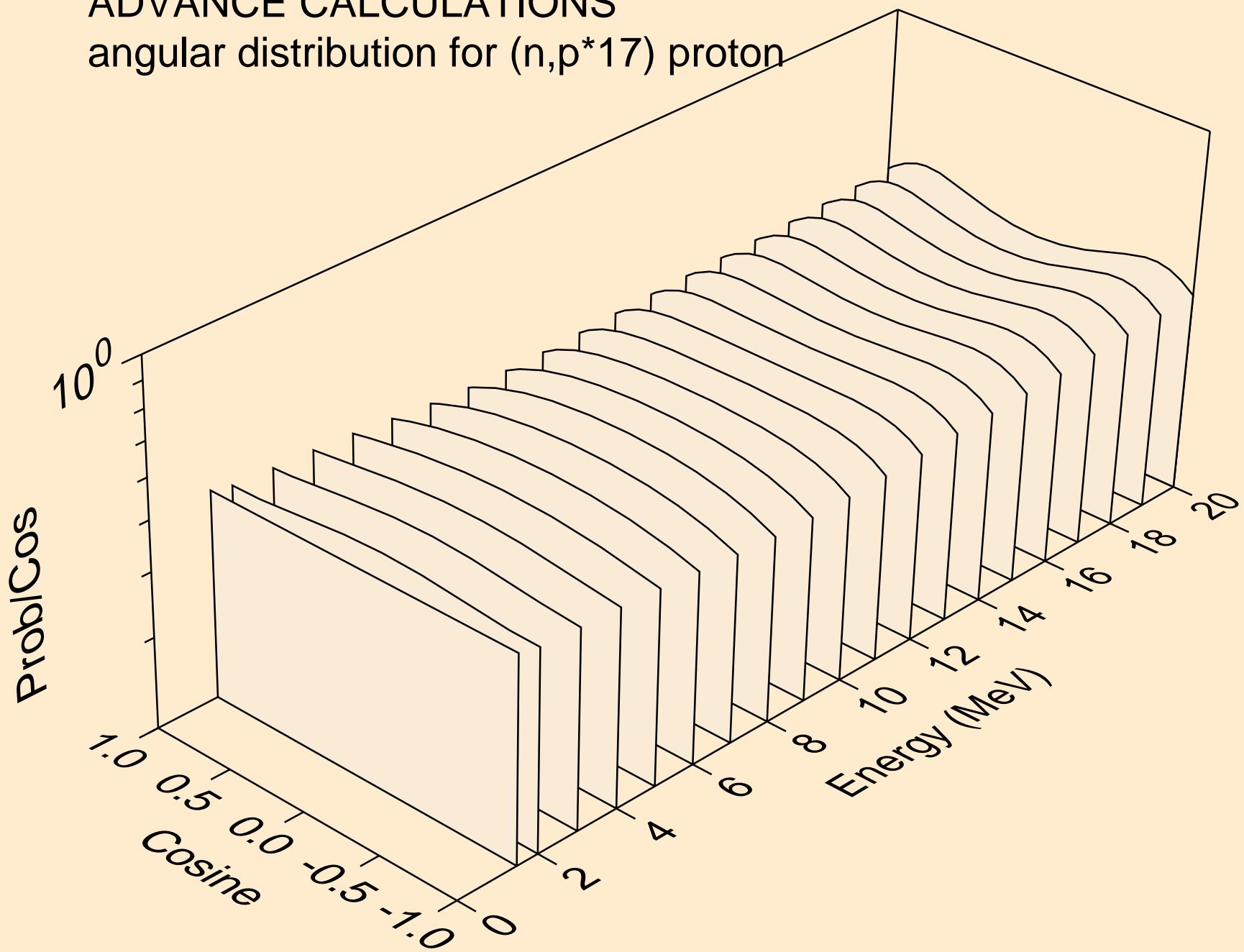
# ADVANCE CALCULATIONS

## angular distribution for ( $n,p^*16$ ) proton



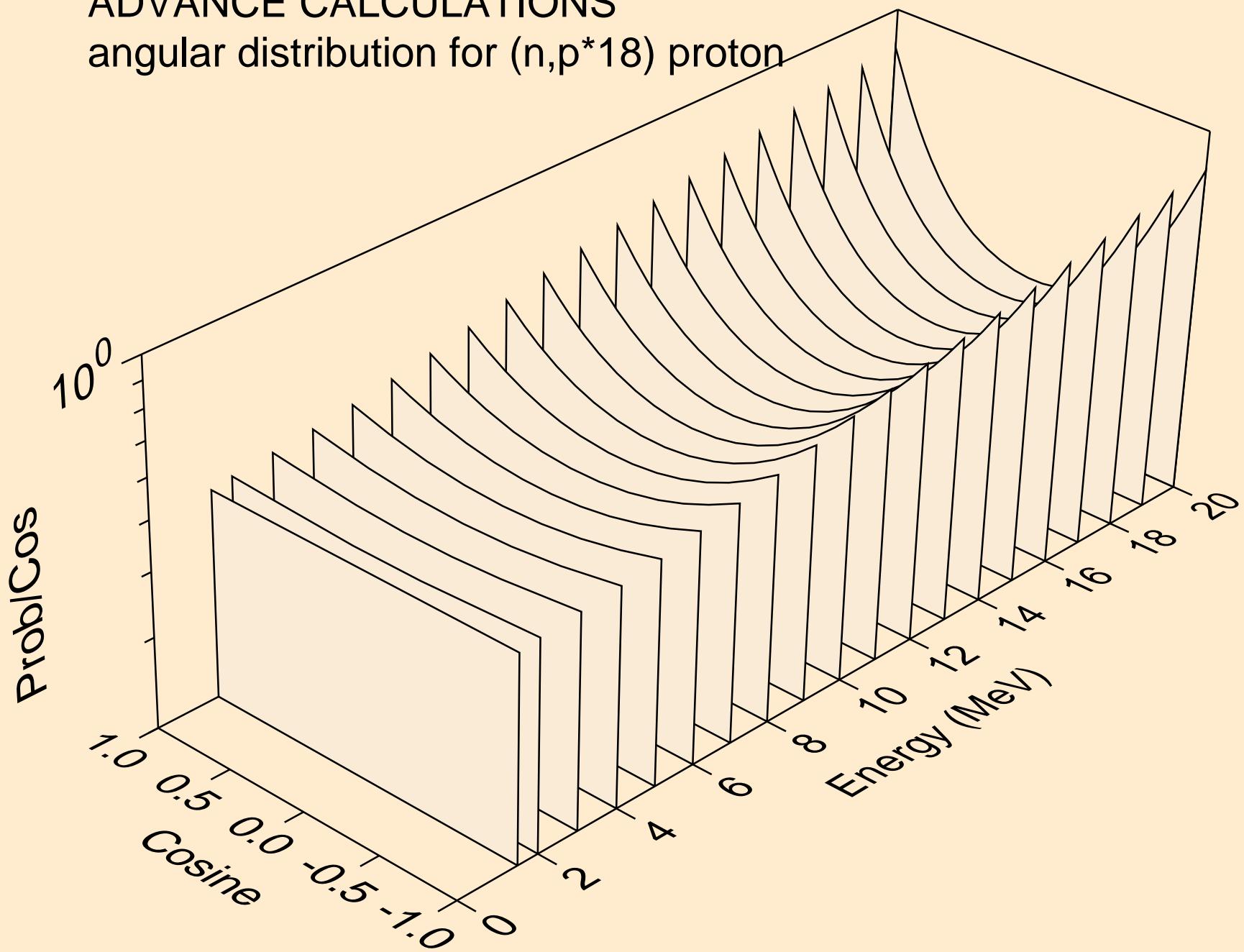
# ADVANCE CALCULATIONS

## angular distribution for ( $n,p^*17$ ) proton



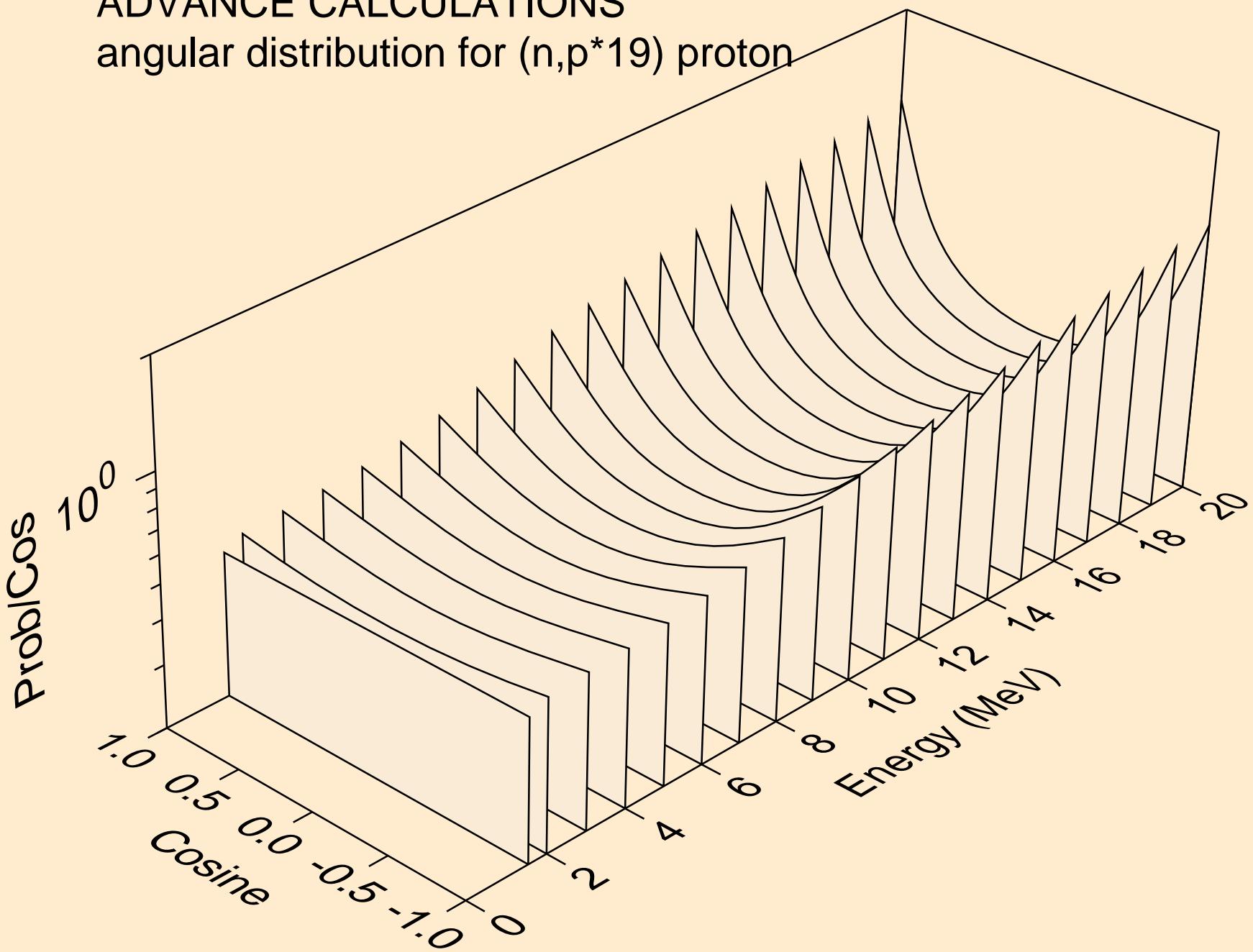
# ADVANCE CALCULATIONS

## angular distribution for ( $n,p^*18$ ) proton



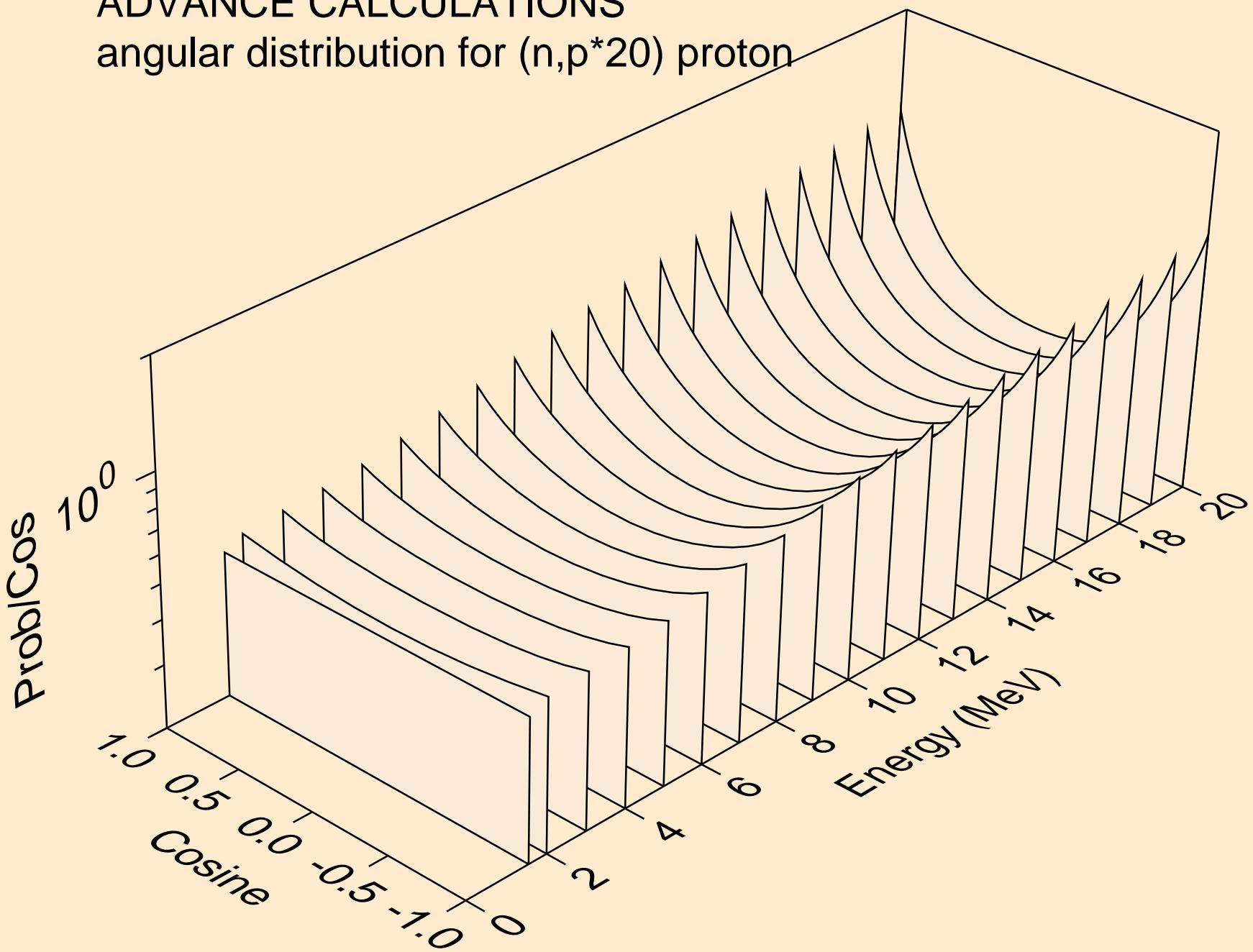
# ADVANCE CALCULATIONS

## angular distribution for ( $n,p^*19$ ) proton



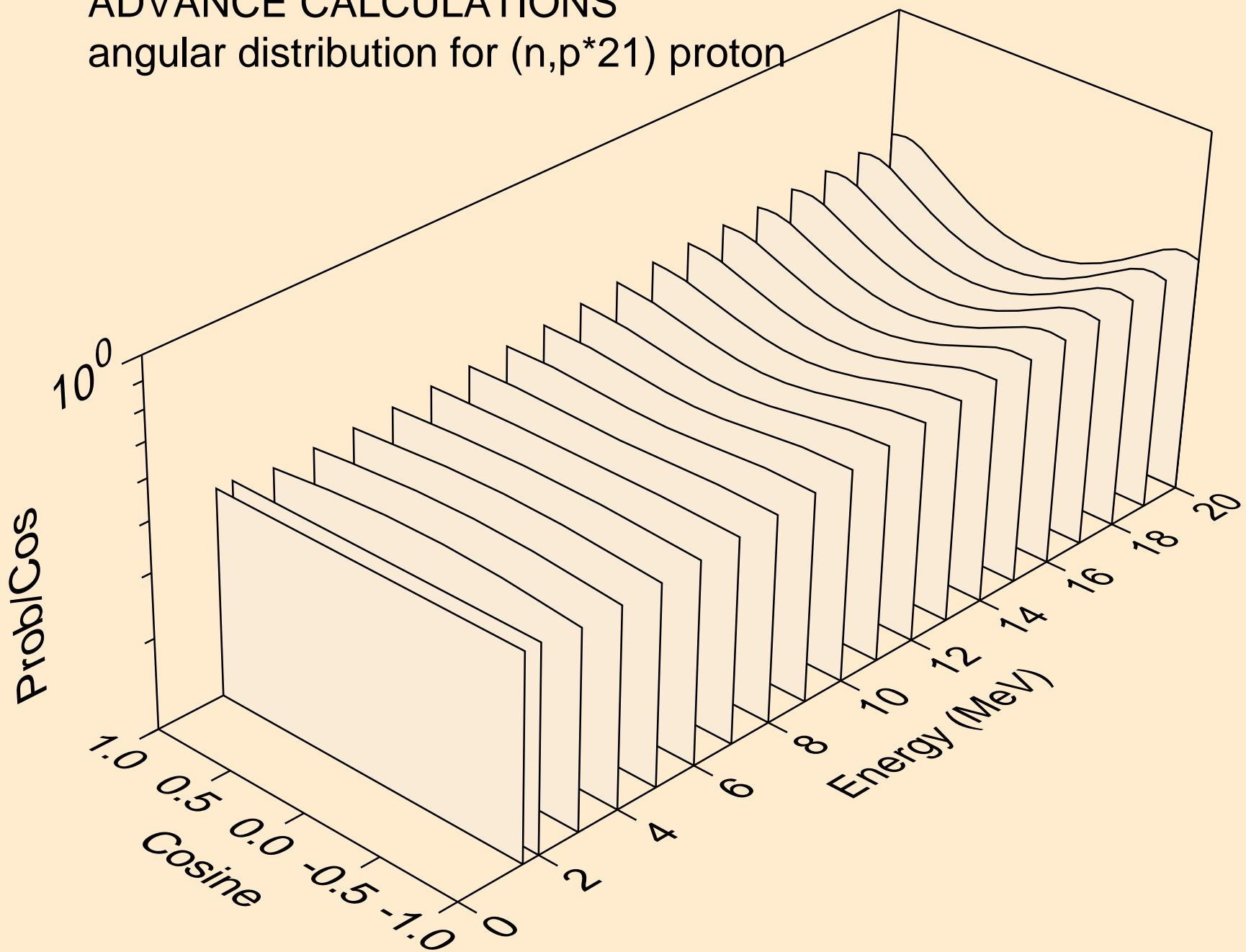
# ADVANCE CALCULATIONS

angular distribution for  $(n,p^*)$  proton



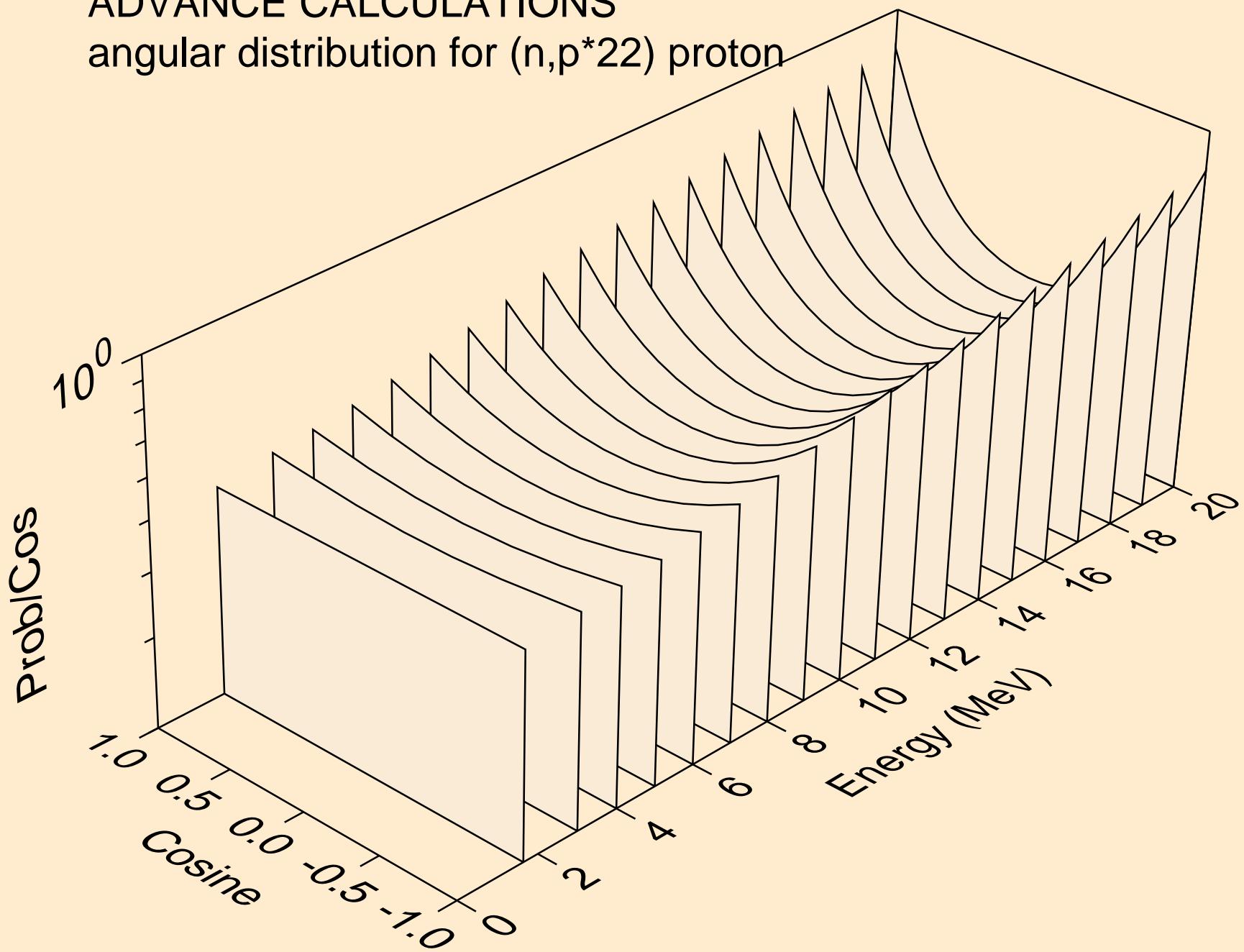
# ADVANCE CALCULATIONS

## angular distribution for ( $n,p^*21$ ) proton



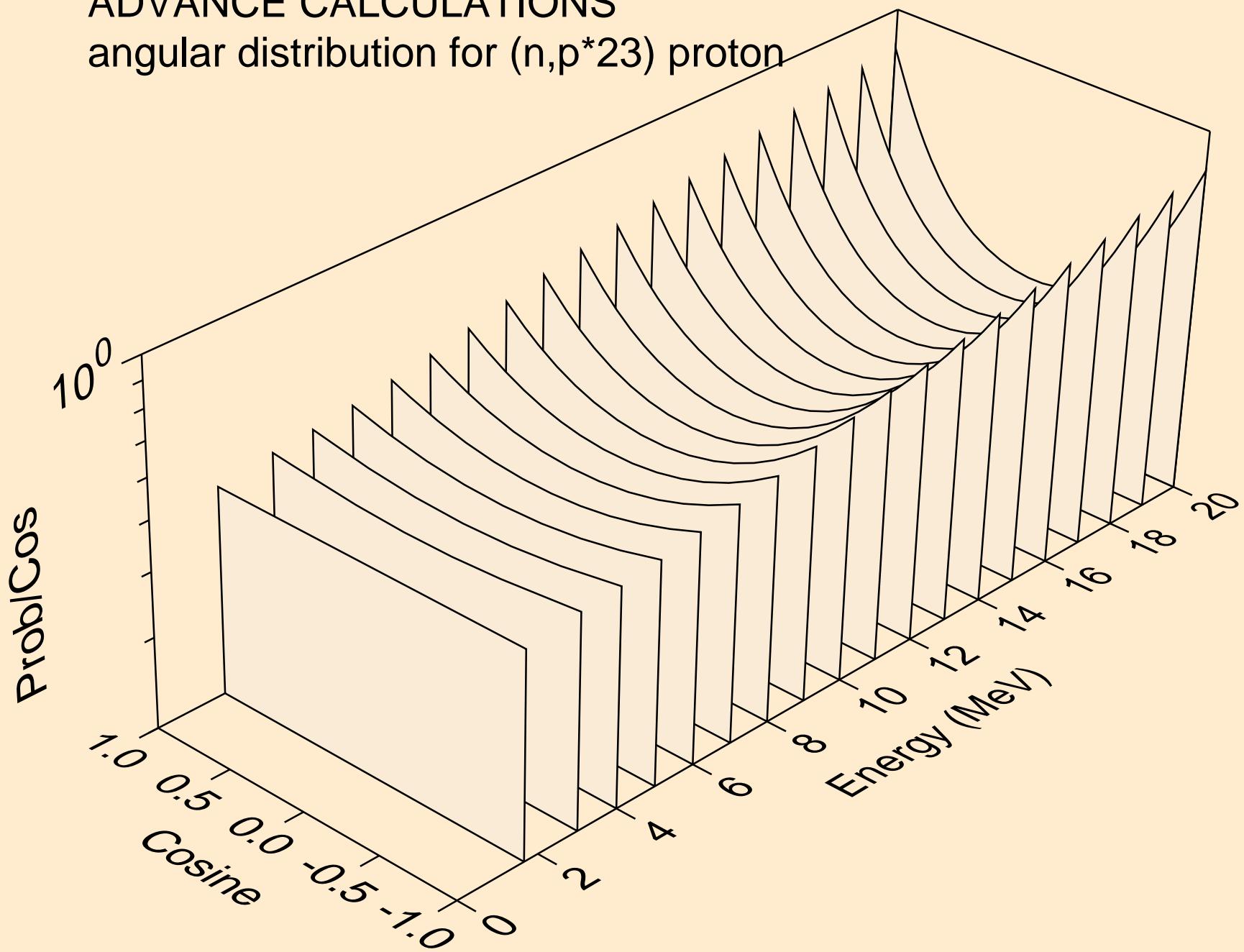
# ADVANCE CALCULATIONS

## angular distribution for ( $n,p^*$ ) proton



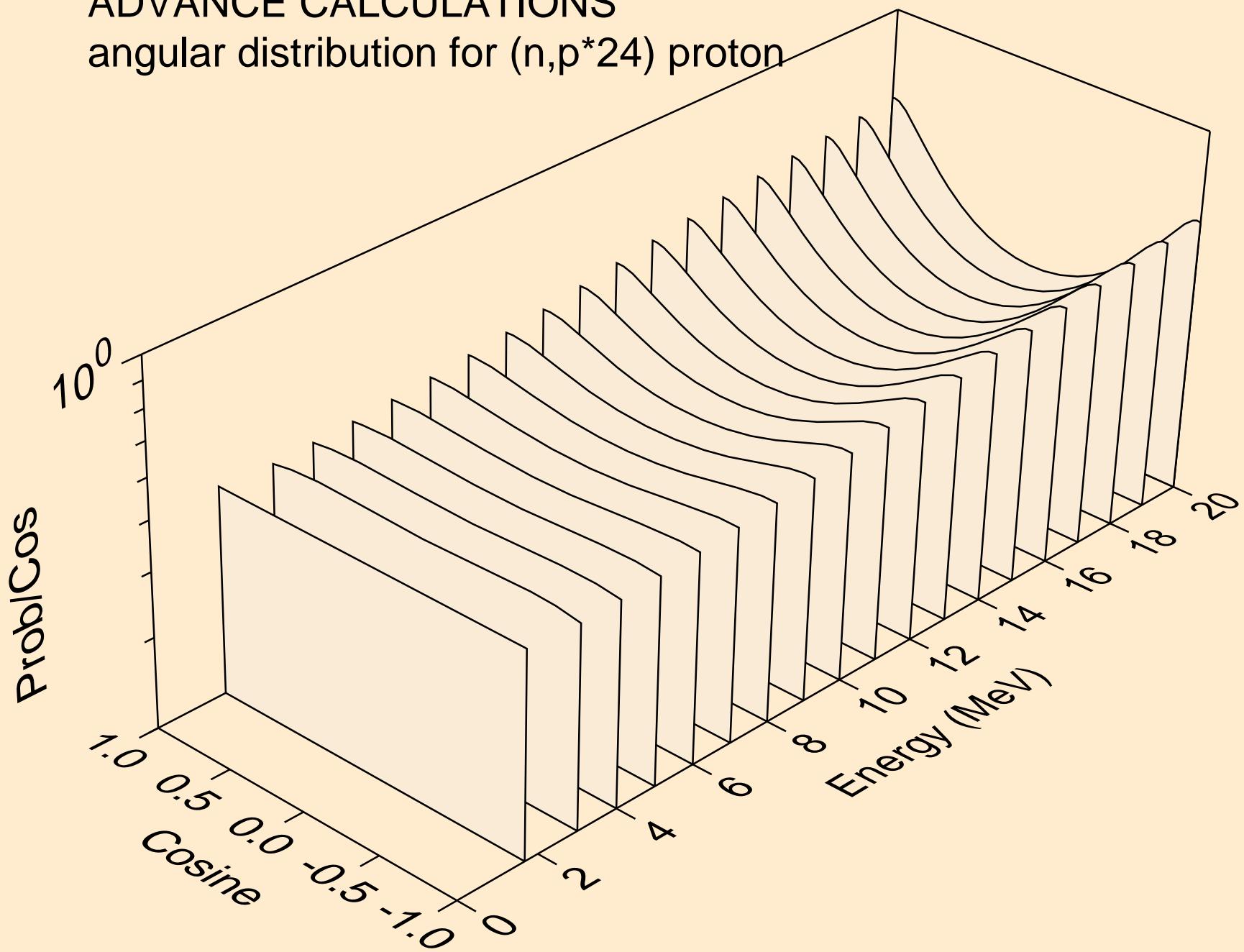
# ADVANCE CALCULATIONS

## angular distribution for ( $n,p^*23$ ) proton



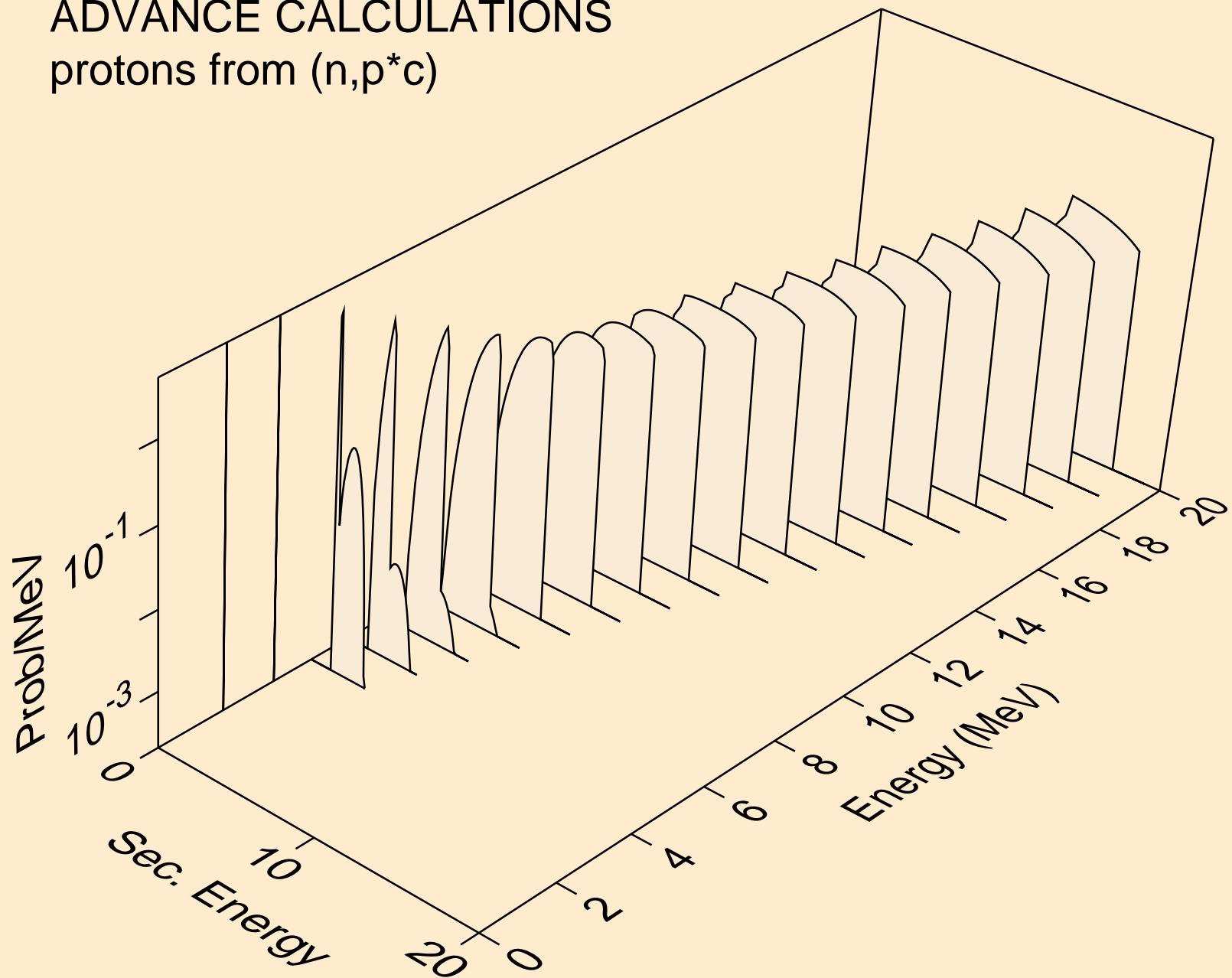
# ADVANCE CALCULATIONS

## angular distribution for ( $n,p^*24$ ) proton



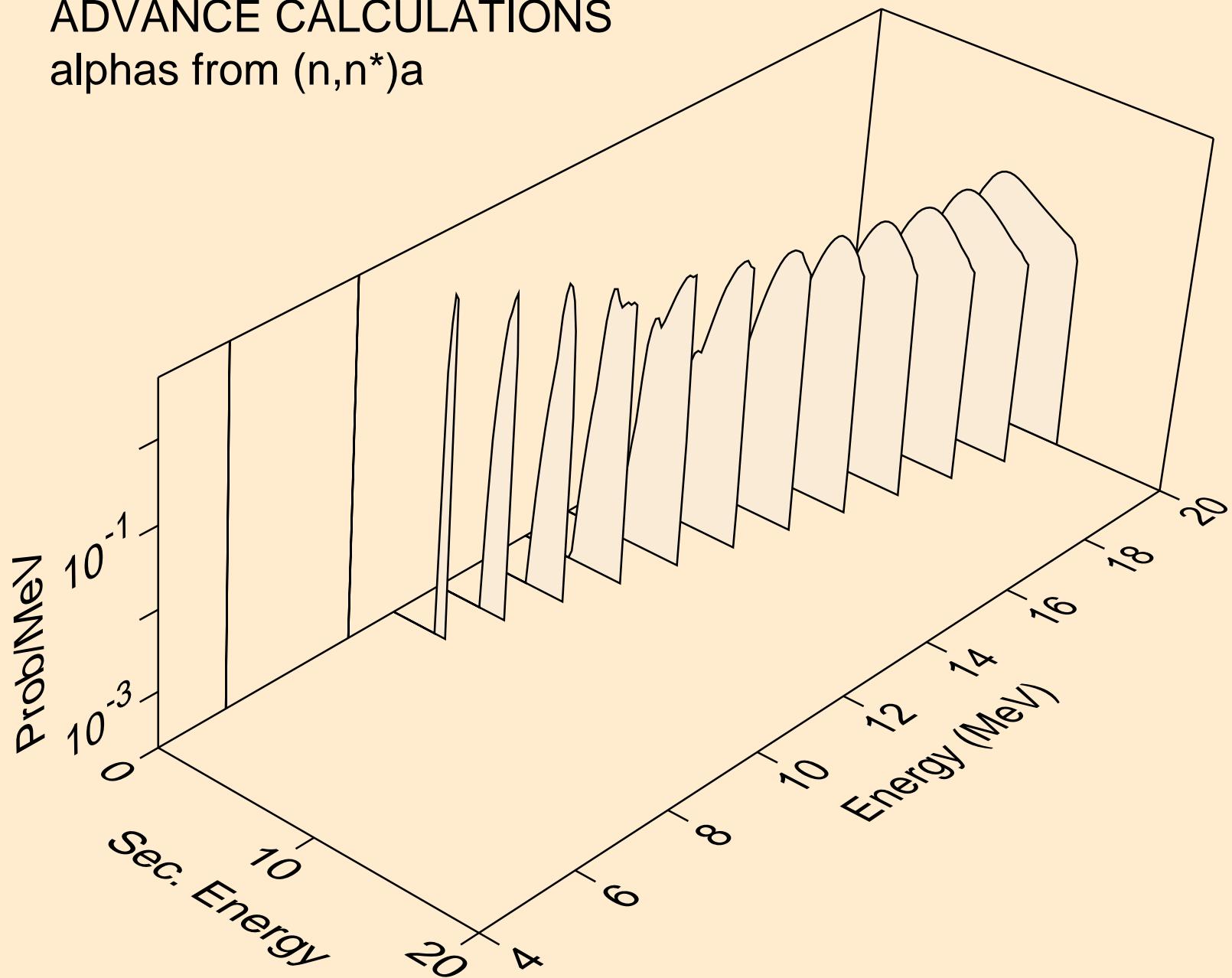
# ADVANCE CALCULATIONS

protons from  $(n,p^*c)$



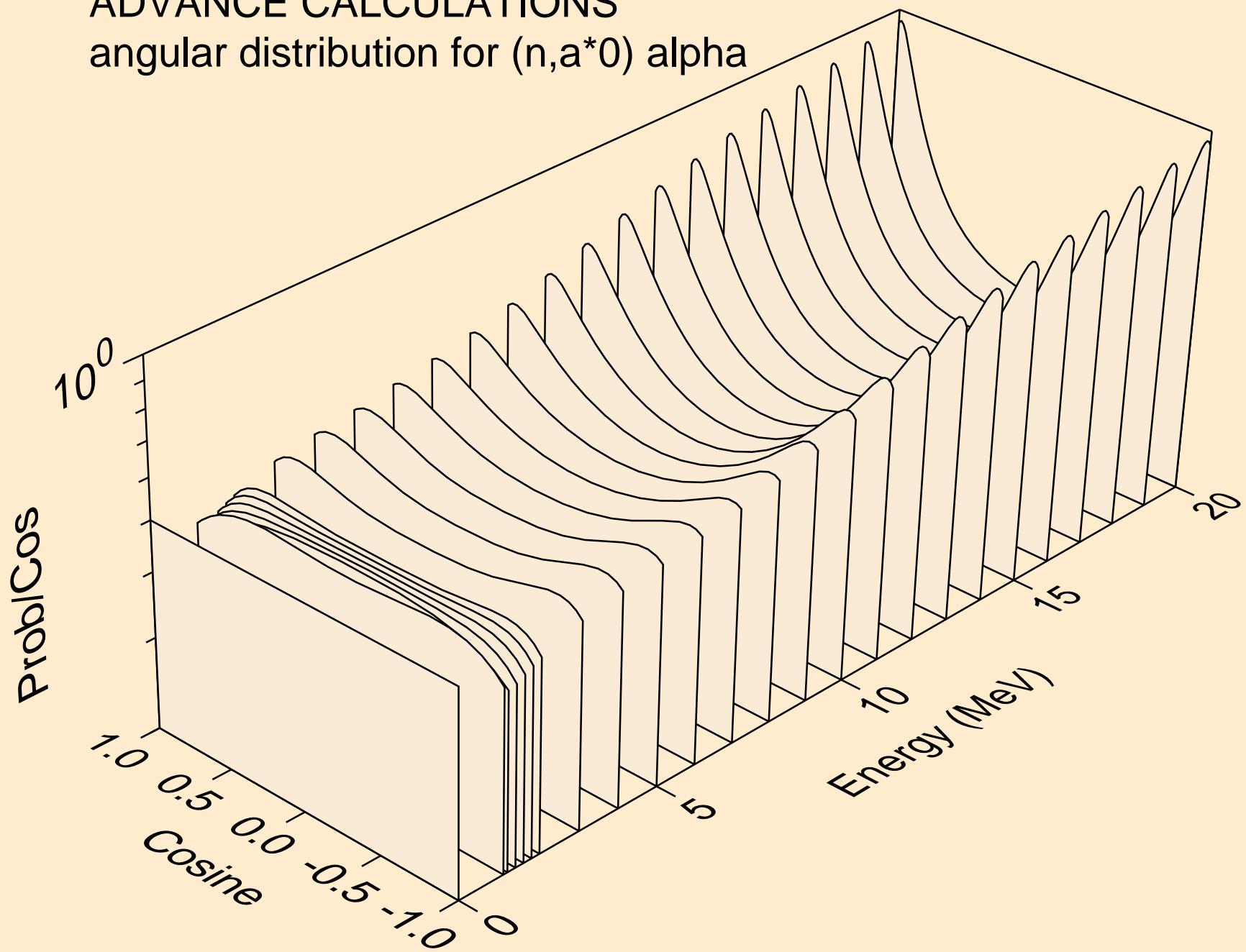
# ADVANCE CALCULATIONS

## alphas from $(n,n^*)a$



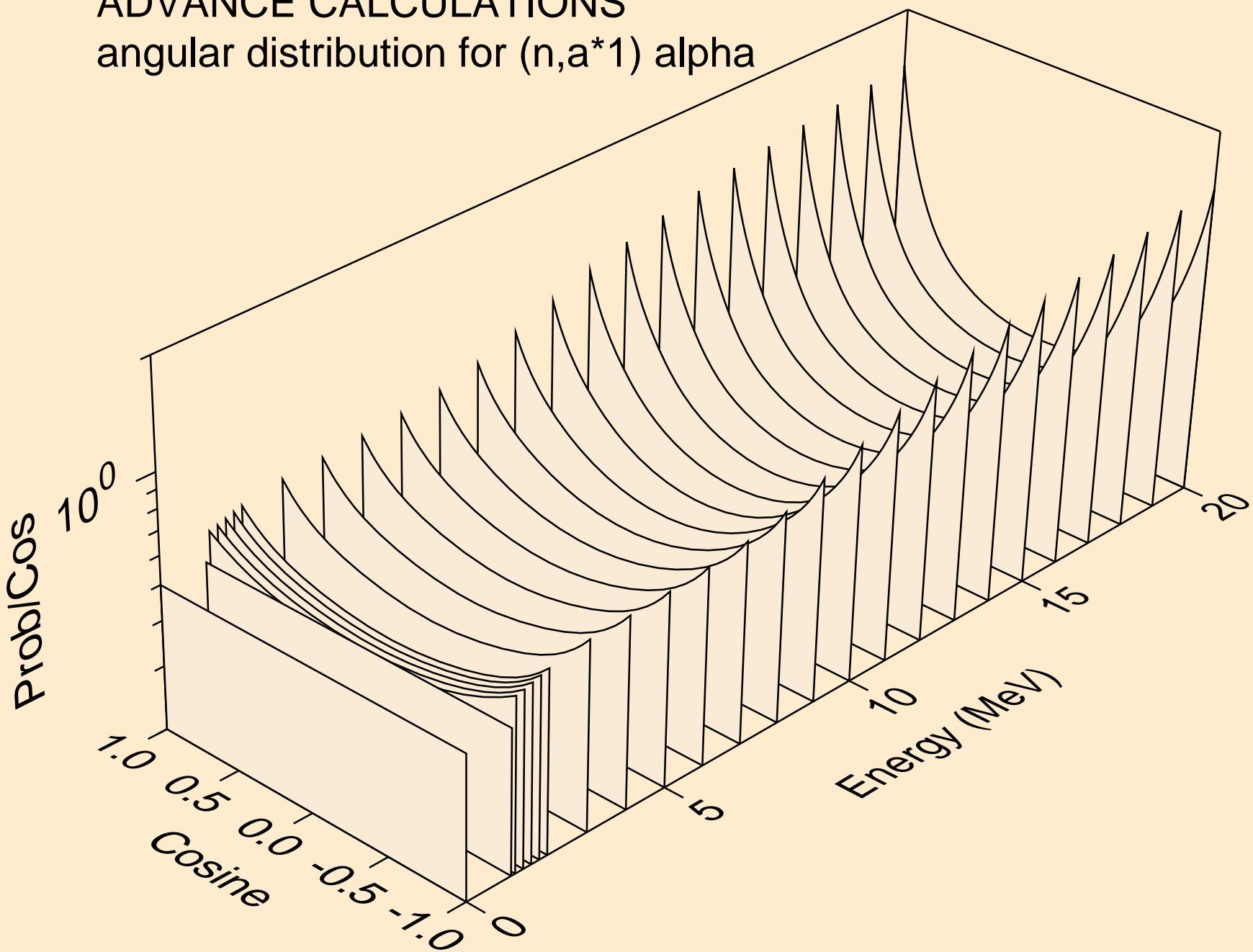
# ADVANCE CALCULATIONS

angular distribution for  $(n,a^*0)$  alpha



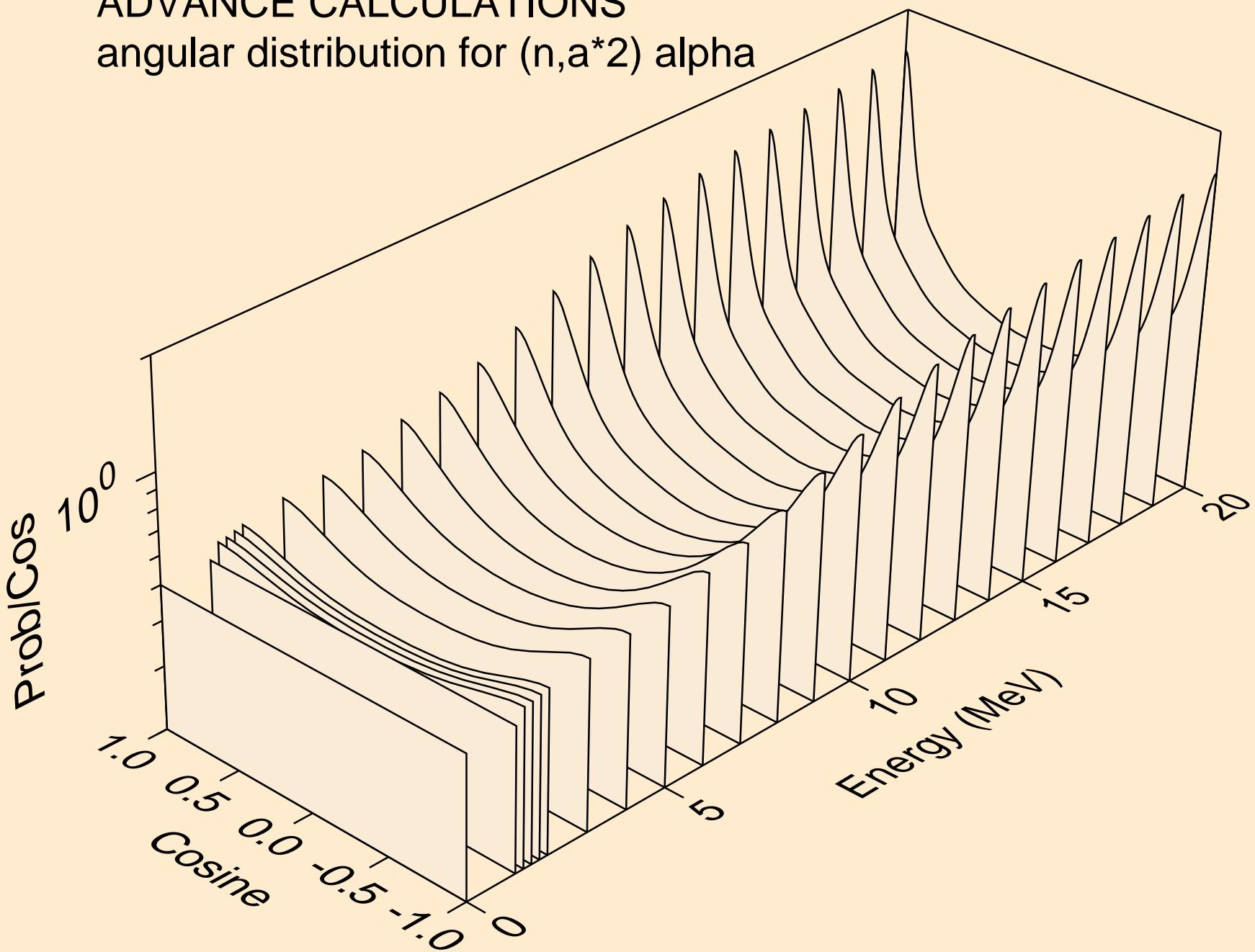
# ADVANCE CALCULATIONS

angular distribution for  $(n,a^*1)$  alpha



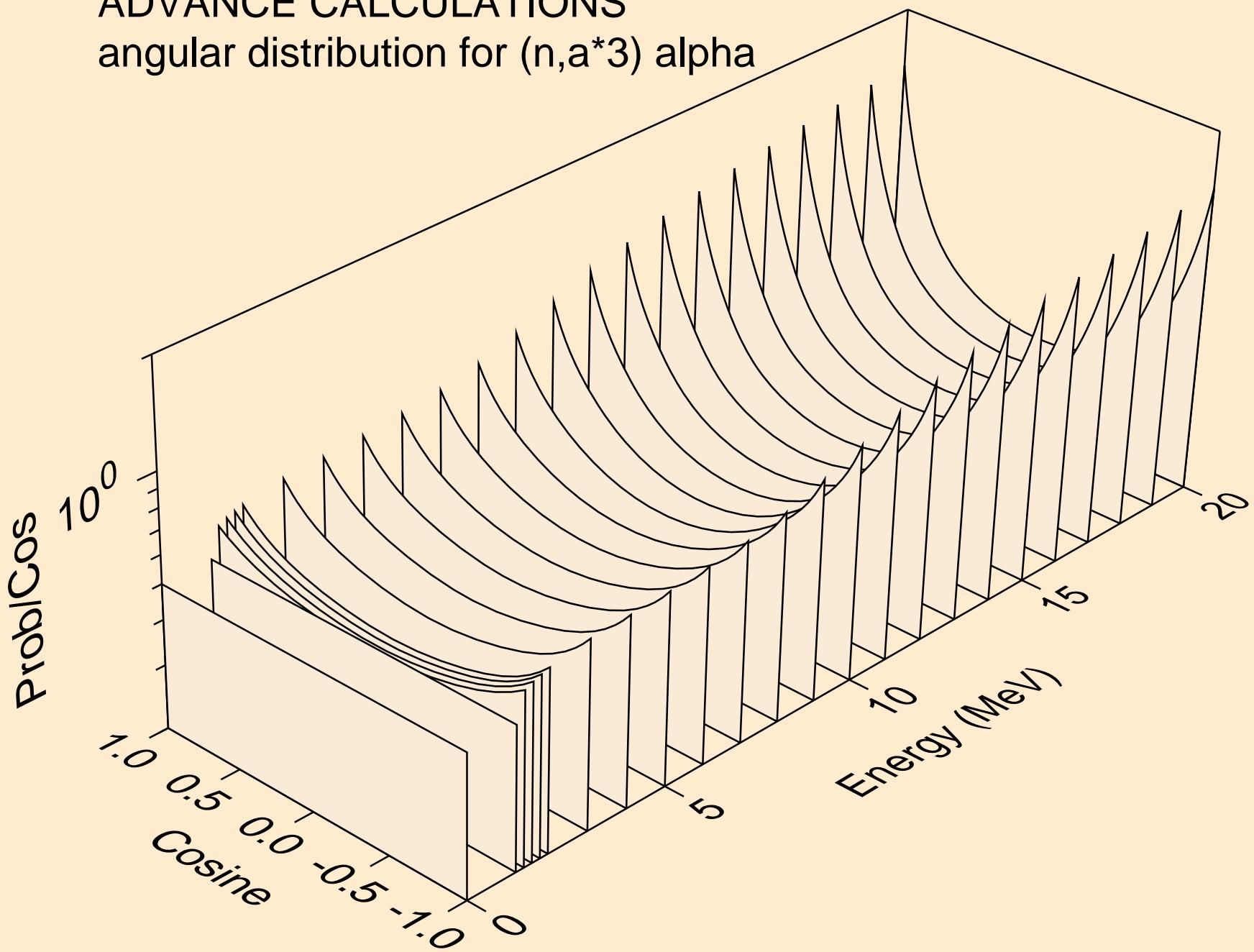
# ADVANCE CALCULATIONS

angular distribution for  $(n,a^*2)$  alpha



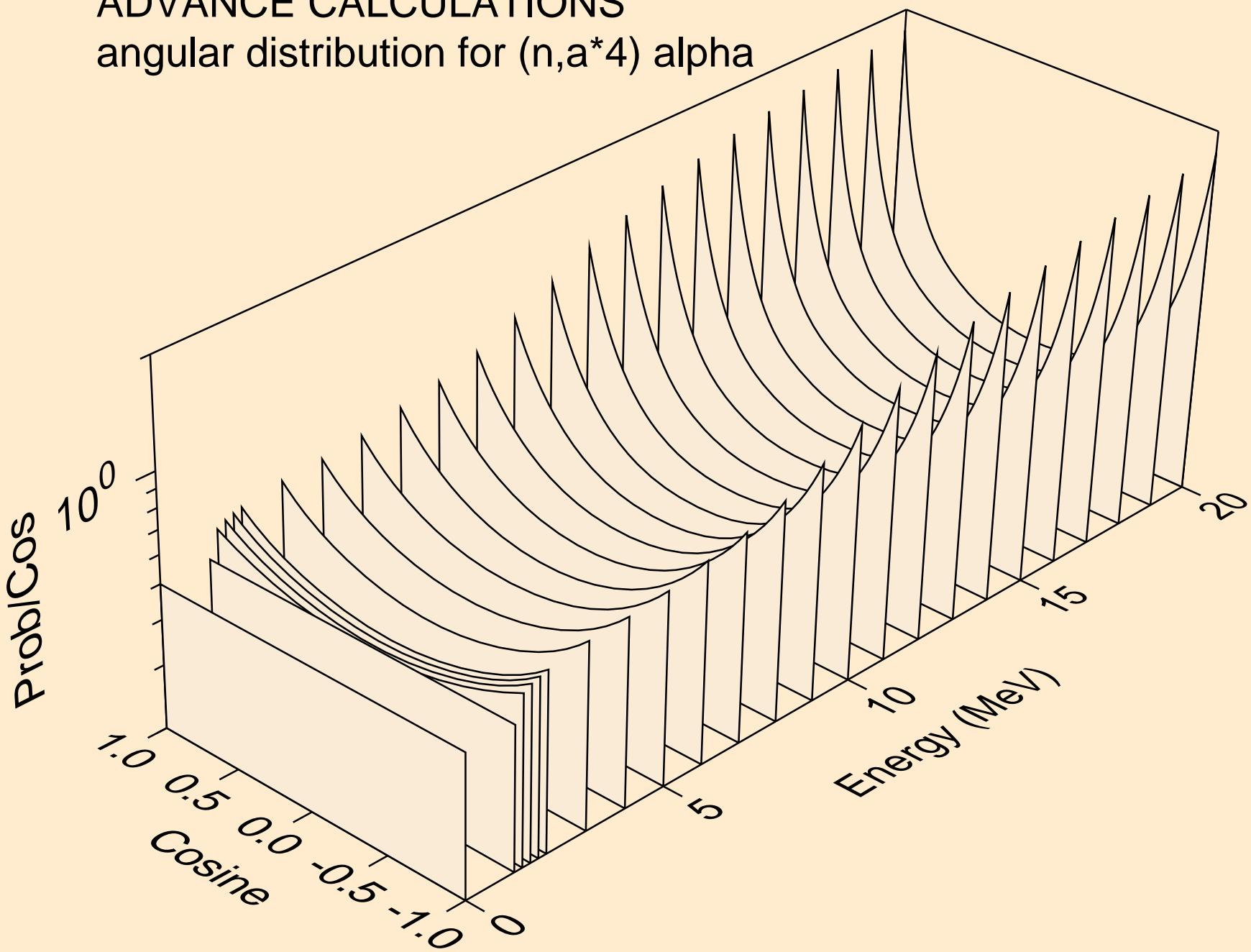
# ADVANCE CALCULATIONS

angular distribution for  $(n,a^*3)$  alpha



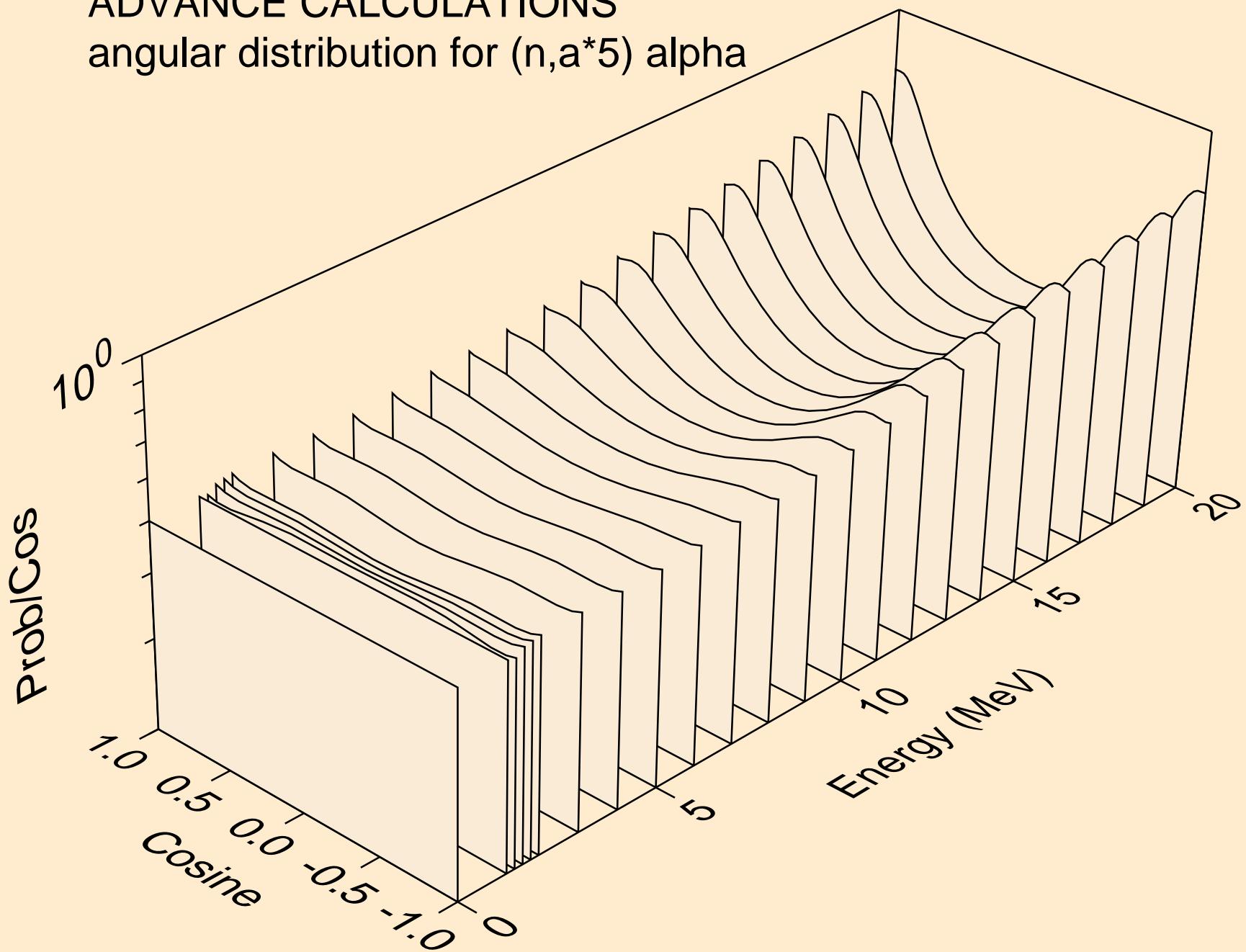
# ADVANCE CALCULATIONS

## angular distribution for $(n,a^*4)$ alpha



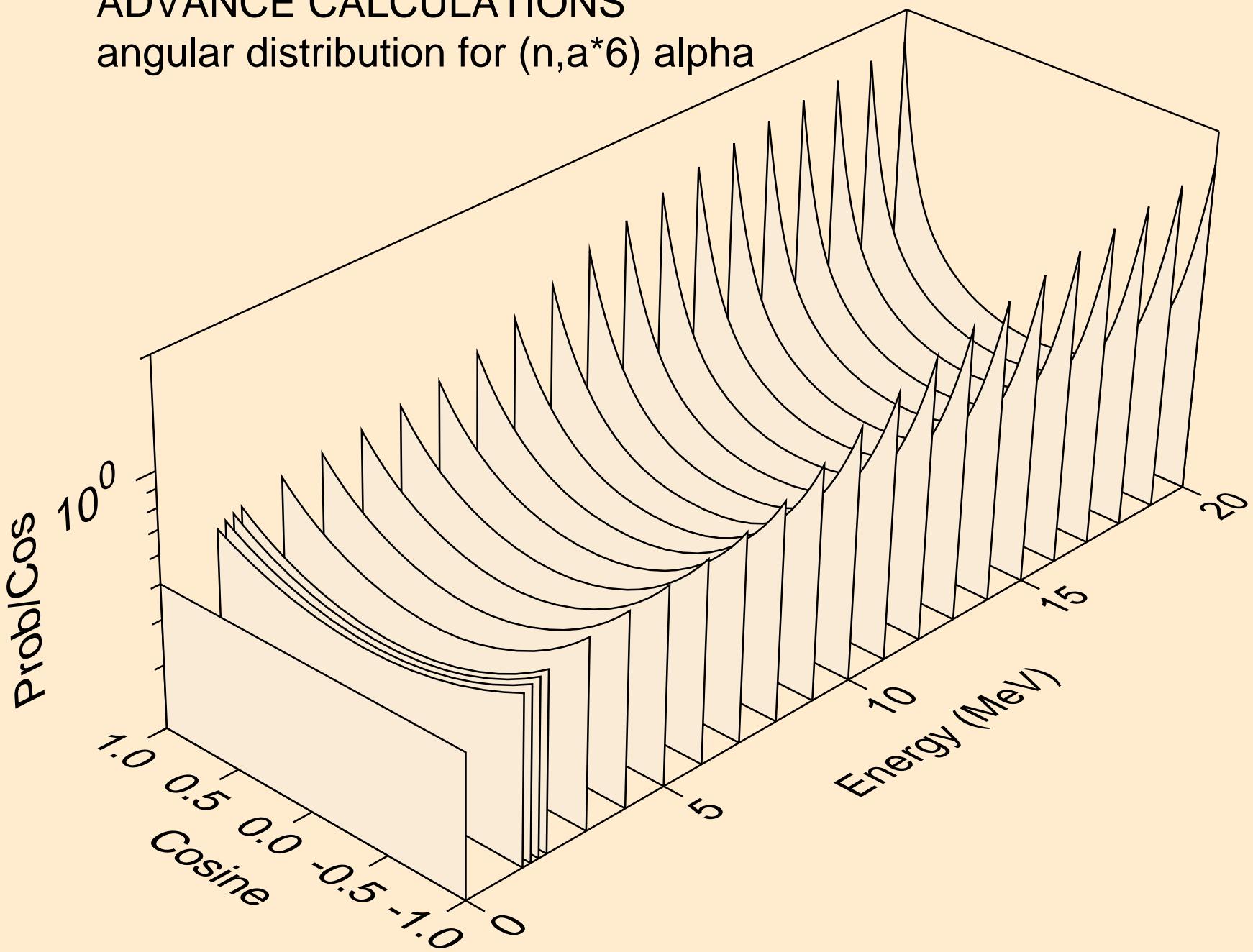
# ADVANCE CALCULATIONS

## angular distribution for (n,a\*5) alpha



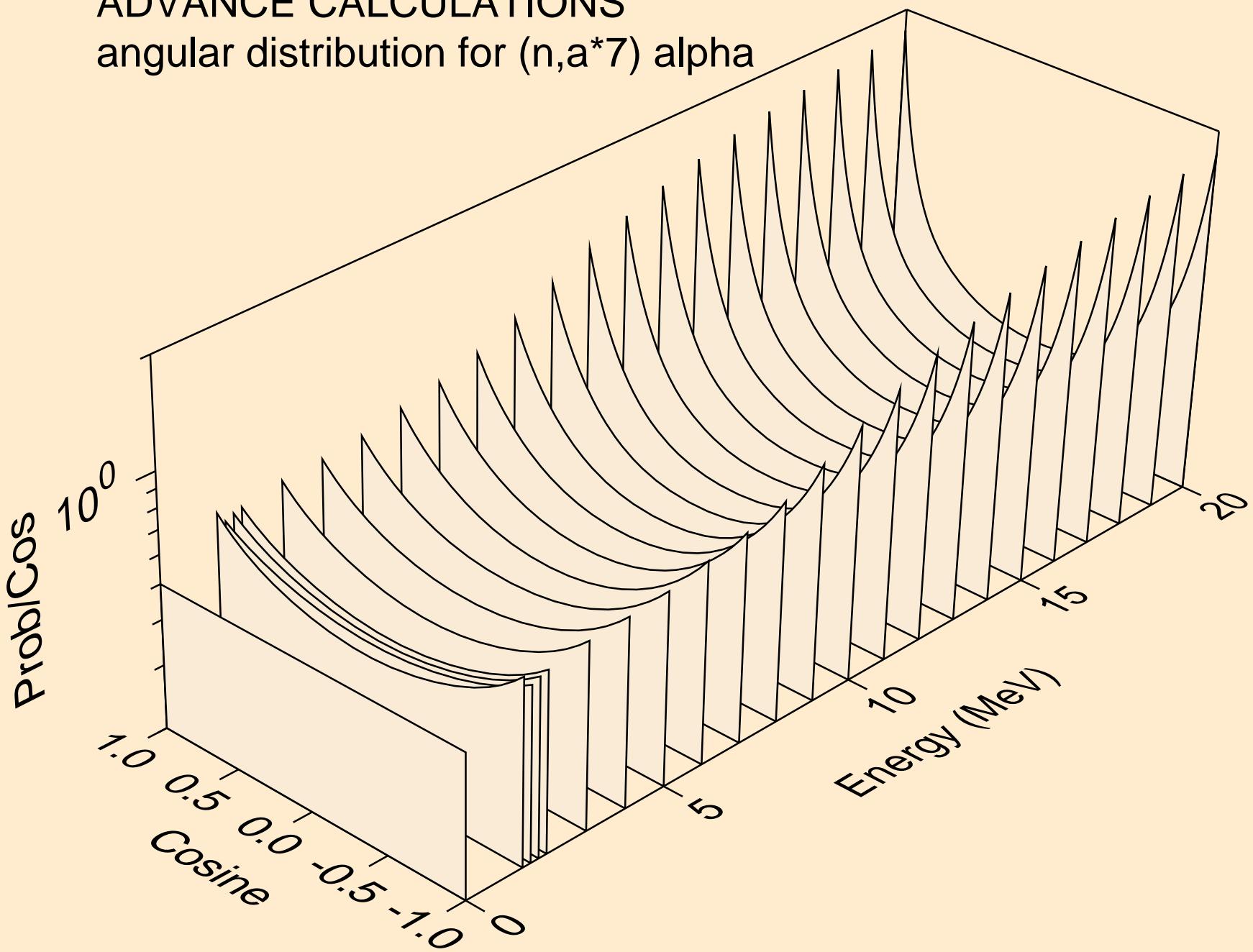
# ADVANCE CALCULATIONS

angular distribution for  $(n,a^*6)$  alpha



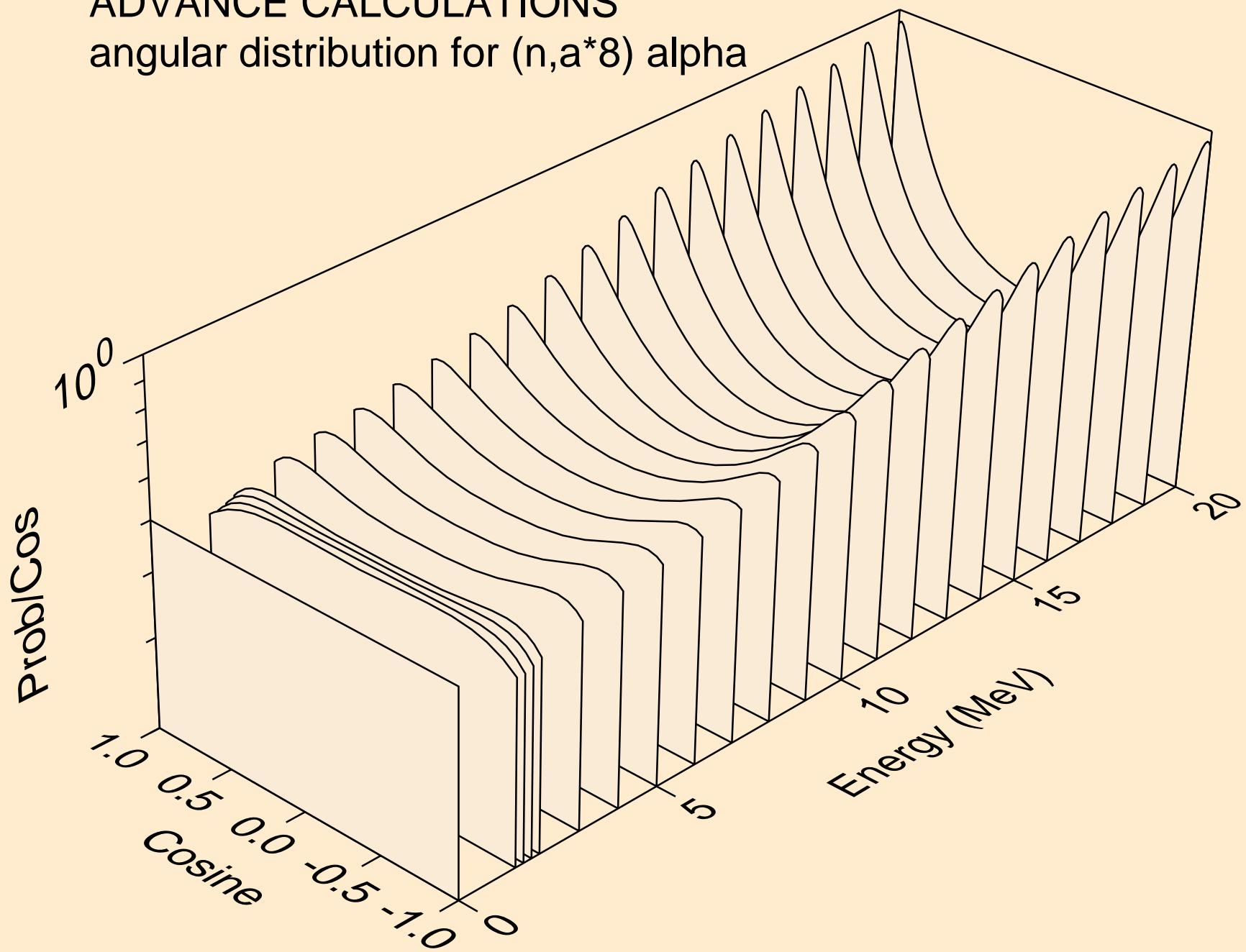
# ADVANCE CALCULATIONS

angular distribution for  $(n,a^*7)$  alpha



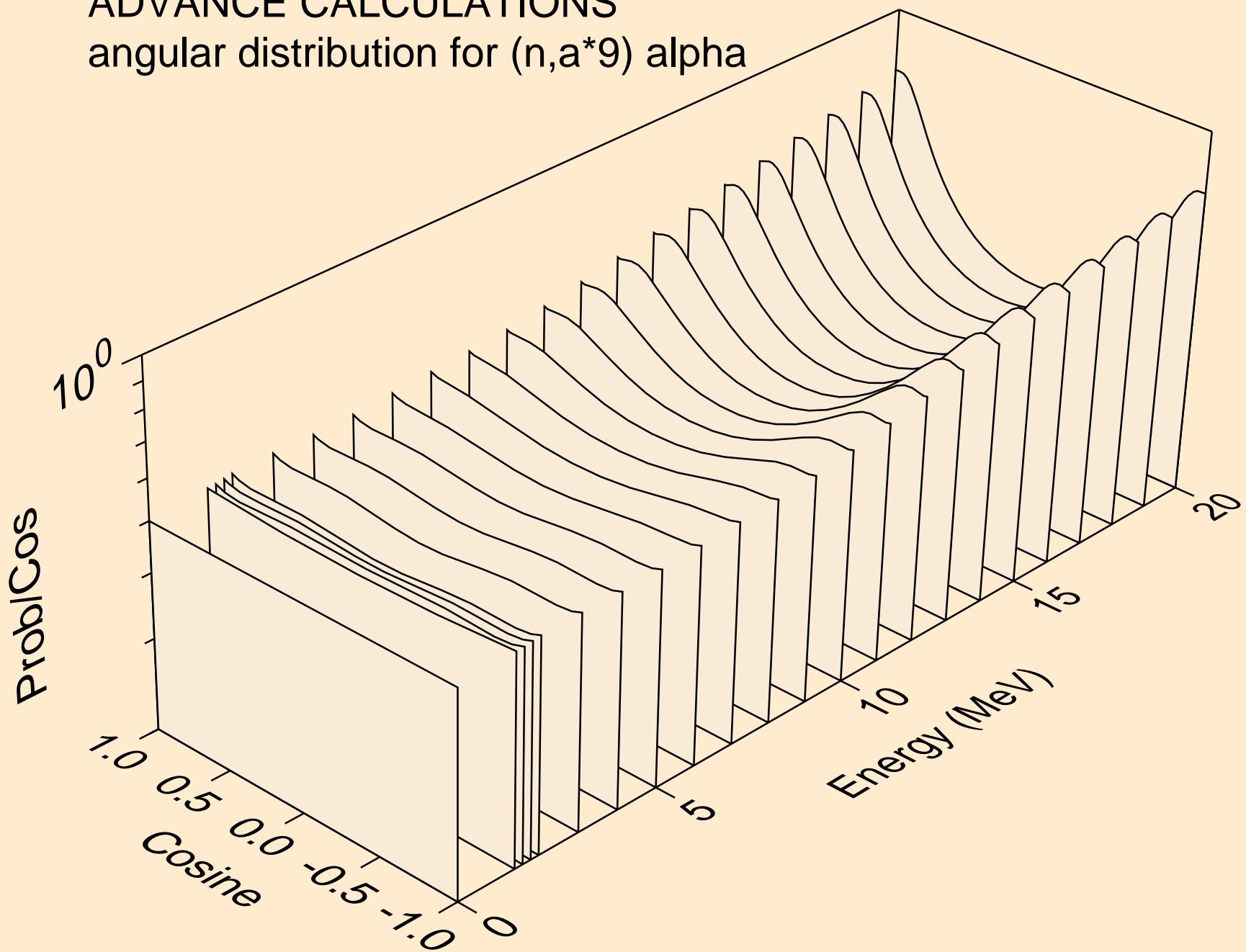
# ADVANCE CALCULATIONS

angular distribution for  $(n,a^*8)$  alpha



# ADVANCE CALCULATIONS

## angular distribution for (n,a\*9) alpha



# ADVANCE CALCULATIONS

alphas from  $(n,a^*c)$

